ORDER ON PETITION FOR DECLARATORY ORDER

(issued January 21, 2010)

1. On November 20, 2009, Western Grid Development LLC (Western Grid)1 filed a petition for declaratory order (Petition) pursuant to Rule 207 of the Commission’s Rules of Practice and Procedure.2 Western Grid requests a Commission finding that its proposed energy storage device projects (Projects) are wholesale transmission facilities, as well as Commission approval of certain incentive rate treatments for the Projects under Federal Power Act (FPA) section 2193 and Order No. 679.4

2. As discussed below, we find that, based on the circumstances and characteristics of the Projects, the Projects are wholesale transmission facilities. We also grant the requested incentives, with the exception of the abandoned plant incentive, conditioned on, among other things, the California Independent System Operator Corporation’s (CAISO) approval of the Projects in its transmission planning process. We note that our findings herein apply only to the specific Projects already identified by Western Grid to

1 Western Grid is a limited liability corporation, organized on April 20, 2009 and funded solely by its principals.


the CAISO in the CAISO’s transmission planning process as of the date Western Grid submitted its Petition for our consideration.\(^5\)

I. **Background**

A. **Description of the Projects**

3. The proposed Projects are energy storage devices to be constructed and operated at specific sites along the CAISO grid where, Western Grid states, they would provide transmission services to solve existing reliability problems at a lower cost than traditional transmission upgrades. As set forth in the proposal, Western Grid’s Projects will be used to provide voltage support and to address thermal overload situations,\(^6\) at the CAISO’s instruction. Western Grid adds that the Projects use an advanced transmission technology that has a smaller adverse environmental impact than traditional transmission solutions, can provide efficient transmission solutions for existing reliability problems, and can be incorporated into the CAISO system using smart grid technologies.\(^7\)

4. Western Grid states that the sodium sulfur (NaS) batteries that it proposes to use in the Projects will range in size from 10 to 50 MW, can be constructed and operated in a cost effective manner, and are ideal to address transmission reliability events.\(^8\) Western Grid claims that the Projects will facilitate reliability on the CAISO system by (1) mitigating normal transmission overload; (2) addressing transmission line trips; (3) responding to transmission lines taken off for maintenance; and/or (4) reacting to voltage dips on transmission line segments on the CAISO system.

5. According to Western Grid, the NaS batteries are similar to substation equipment, such as large electricity capacitors, used in many wholesale transmission system

\(^5\) See Western Grid November 20, 2009 Petition at 8 (Western Grid Petition) (stating that Western Grid submitted the Projects for consideration in the CAISO transmission planning process). We note that the record before us does not contain Western Grid’s submission to the CAISO transmission planning process.

\(^6\) See id. at 7.

\(^7\) See id. at 5-7.

\(^8\) Western Grid states that it reserves the right to seek transmission status from the Commission for types of energy storage devices other than the NaS batteries, which share similar physical and operational characteristics with the NaS batteries. Western Grid Petition at 4-5.
facilities. Western Grid states that the Projects will be operated by Western Grid as a CAISO Participating Transmission Owner (PTO). Western Grid notes that it has submitted the Projects to the CAISO’s transmission planning process for consideration as economic projects. Western Grid adds that it is actively discussing the Projects’ financing with several New York investment firms.

**B. Petition and Proposed Incentives**

6. Western Grid first seeks a Commission finding that the Projects are wholesale transmission facilities, subject to Commission jurisdiction. Then, consistent with Order Nos. 679 and 679-A, Western Grid requests the following transmission incentive rate treatment for the Projects: (1) inclusion of 100 percent of the Projects’ construction work in progress (CWIP) in rate base; (2) recovery of 100 percent of prudently-incurred abandoned plant costs if the Projects are cancelled or abandoned for reasons beyond Western Grid’s control; (3) a combined return on equity (ROE) adder of 195 basis-points for the Projects; (4) deferred cost recovery through creation of a regulatory asset for pre-commercial costs that will be amortized over five years; and (5) a hypothetical capital structure of 50 percent equity and 50 percent debt until the Projects are placed into service. Western Grid’s requested combined 195 basis-point ROE adder is comprised of (1) 50 basis-points for participation in an independent system operator (ISO) or a regional transmission organization (RTO); (2) 100 basis-points for its stand-alone, independent transmission company (Transco) structure; and (3) 45 basis-points for the use of smart grid advanced transmission technology.

7. Western Grid also requests Commission insight on perceived barriers that could prevent the CAISO from considering the Projects on an equal footing with other proposed transmission alternatives to solve reliability problems.

**II. Notice of Filings and Responsive Pleadings**

8. Notice of the Petition was published in the *Federal Register*, 74 FR 65116-17 (2009), with interventions and comments due on or before December 21, 2009.

9. ITC Holdings, Corp.; MegaWatt Storage Farms, Inc.; and Metropolitan Water District of Southern California filed timely motions to intervene. Ice Energy, Inc. (Ice Energy); the Coalition to Advance Renewable Energy Through Bulk Energy Storage (CAREBS); the Electric Power Supply Association (EPSA); the National Electrical

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9 Due to the weather-related closure of the Commission on December 21, 2009, the first business day the Commission was open following the comment date established in the Notice of Filing was December 22, 2009.
Manufacturers Association (NEMA); and the PSEG companies (PSEG)\textsuperscript{10} filed timely motions to intervene and comments.

10. Modesto Irrigation District (Modesto); Southern California Edison Company (SoCal Edison); the CAISO; the California Department of Water Resources State Water Project (SWP); the California Municipal Utilities Association (CMUA); the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (collectively, Six Cities); the Northern California Power Agency (NCPA); the M-S-R Public Power Agency and the City of Santa Clara, CA (collectively, MSR/Santa Clara); and the Transmission Agency of Northern California (TANC) filed timely motions to intervene and protests. Western Grid filed an answer on January 5, 2010.

III. Discussion

A. Procedural Matters

11. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2009), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

12. Rule 213(a)(2) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2009), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We were not persuaded to accept Western Grid’s answer and will, therefore, reject it.

B. Timing of Commission Action and the CAISO’s Transmission Planning Process

1. Comments

13. Protesters argue that the Petition is premature. CMUA contends that it is premature for the Commission to assess the usage of the Projects and their potential categorization as transmission facilities absent a comprehensive review by the CAISO. CMUA states that Western Grid filed its Petition with the knowledge that the CAISO is conducting a stakeholder process and pilot program on the role of energy storage devices on the grid. CMUA points out that, in \textit{Nevada Hydro},\textsuperscript{11} the Commission deferred ruling on a request to functionalize a pumped storage facility as transmission until after the

\textsuperscript{10} The PSEG companies include: Public Service Electric and Gas Company, PSEG Power LLC, and PSEG Energy Resources & Trade LLC.

\textsuperscript{11} \textit{Nevada Hydro Co.}, 117 FERC ¶ 61,204 (2006) (\textit{Nevada Hydro}).
CAISO completed a stakeholder process to consider the appropriate treatment of that facility. CMUA urges that Commission to adopt the same approach to the Petition. MSR/Santa Clara also question the lack of formal approvals or reviews from either the CAISO or the California Public Utilities Commission.

14. SoCal Edison argues that any Commission approval of requested transmission rate incentives should not prejudge the Projects’ review by the CAISO through its transmission planning process. SoCal Edison requests that the Commission reiterate its policy that Commission approval of transmission incentives does not constitute project approval.

15. MSR/Santa Clara claim that there is insufficient data for the Commission to evaluate the Projects. For example, MSR/Santa Clara contend that the Petition includes only vague concepts of the Projects, does not identify specific locations or projects, and does not provide any analysis of the reliability benefits provided by the Projects or economic studies to support the requested incentives. MSR/Santa Clara add that the data and assumptions in the Petition are largely hypothetical.

2. Commission Determination

16. We will not delay action on the Petition. The Commission has acted on incentive rate requests prior to the conclusion of the applicable regional transmission planning process or before any permit has been issued by the relevant governmental authorities.\textsuperscript{12} The Commission has stated previously that any grant of rate incentives under Order No. 679 is not intended to prejudge the outcome of any regional transmission planning process, including the CAISO’s transmission planning process, or any governmental permitting or similar proceeding.\textsuperscript{13} Furthermore, as discussed below, because Western Grid has not made the necessary FPA section 219 demonstration that the Projects ensure reliability and/or reduce the price of delivered power by reducing congestion,\textsuperscript{14} we are conditioning the grant of the requested incentives on the CAISO’s approval of the


\textsuperscript{13} See, e.g., Green Power Express LP, 127 FERC ¶ 61,031, at P 42 (2009) (Green Power Express) (“ruling on a request for incentives pursuant to Order No. 679 does not prejudge the findings of a particular transmission planning process or the siting procedures at state commissions”); see also Green Energy Express, 129 FERC ¶ 61,165 at P 13.

Projects in its transmission planning process. We find that this condition will ensure that Western Grid provides adequate and sufficiently detailed data on the Projects to be properly considered by the CAISO, thereby satisfying the concerns of MSR/Santa Clara. Therefore, we find that a delay in Commission action is not necessary.

17. We find CMUA’s reliance on Nevada Hydro inapposite. In that case, the applicant sought a CAISO decision on how a pumped storage facility should be managed as well as who should manage it. The Commission ultimately found that, absent information from the CAISO as to how it expected to use and integrate the pumped storage facility into the grid and energy market, it was premature for the Commission to determine the appropriateness of incentives and whether the cost of the pumped storage project should be included in the CAISO’s transmission access charge. Here, as discussed below, Western Grid proposes to operate the Projects itself, as a CAISO PTO. With this information, our action here is not premature, and we are able to proceed with the analysis of the Petition.

C. Classification of Projects as Transmission Facilities

1. Western Grid’s Proposal

18. Western Grid states that the Projects will transport stored energy to serve retail load, similar to a transmission line, and will provide voltage support that is necessary for the operation of the transmission system. Western Grid argues that the Projects are not generation facilities because they do not convert another energy source into electricity, are reliant on energy provided by the electric grid, and will not participate in the CAISO markets. Western Grid explains that the Projects store electricity taken off the grid for later use and discharge stored electricity back onto the grid. According to Western Grid, while the Projects produce real power when discharged, Western Grid will operate them only to enhance reliability of transmission service and will not provide electricity for commercial sale.

19. Western Grid explains that it will act as a CAISO PTO and operate the Projects as wholesale transmission facilities under the direction of the CAISO. Western Grid

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15 Nevada Hydro, 117 FERC ¶ 61,204 at P 28-29.

16 Id. P 30.

17 Western Grid Petition at 13.

18 Western Grid states that it will apply to become a PTO in the CAISO at the appropriate time.
indicates that as proposed the Projects will not serve to make Western Grid a market participant in any way. Western Grid states that it “would pay retail energy prices when taking power from the grid and would receive retail credit in releasing energy during a time when reliability concerns trigger such an action.”\textsuperscript{19} Western Grid asserts that it will pass through any incremental market revenues to customers through a PTO tariff.\textsuperscript{20}

20. According to Western Grid, the NaS batteries it will use in the Projects are operationally similar to capacitor banks, which the Commission has concluded are transmission facilities.\textsuperscript{21} Western Grid states that the Commission has allowed the disposition of Commission-jurisdictional facilities that have included capacitors.\textsuperscript{22} Further, Western Grid states that the Projects are similar to pumped storage units because they are not a net producer of electricity.\textsuperscript{23} Yet, Western Grid notes that, while pumped storage is designed to provide energy as a capacity resource to the grid, the Projects are designed to provide voltage support to address already-identified transmission system reliability issues, similar to large transmission capacitors.

21. Western Grid argues that the Commission’s finding, in \textit{Nevada Hydro II},\textsuperscript{24} that the Lake Elsinore Advanced Pump Storage (LEAPS) Project was not entitled to incentives pursuant to section 1223 of EPAct 2005\textsuperscript{25} is distinguishable because that

\textsuperscript{19} Western Grid Petition at 15.

\textsuperscript{20} \textit{Id}.

\textsuperscript{21} \textit{Id}. at 11 (citing \textit{Southern Co.}, 80 FERC ¶ 61,318, 62,080 n.6 (1997) (\textit{Southern Company})).

\textsuperscript{22} \textit{Id}. (citing \textit{Consolidated Edison Co.}, 125 FERC ¶ 62,235, at 64,692 (2008) (\textit{Con Edison})). According to Western Grid, in \textit{Con Edison} the Commission allowed for the disposition of a jurisdictional capacitor facility to Con Edison, stating that the facility would be under the operational control of the New York Independent System Operator “like all of Con Edison’s transmission facilities.”

\textsuperscript{23} Western Grid Petition at 13.

\textsuperscript{24} \textit{Nevada Hydro Co.}, 122 FERC ¶ 61,272, at P 82-85 (2008) (\textit{Nevada Hydro II}), reh 'g pending.

finding was based on the conclusion that it would not be appropriate to require the CAISO to assume operational control over the LEAPS facility.\footnote{Western Grid Petition at 14 (citing \textit{Nevada Hydro II}, 122 FERC ¶ 61,272 at P 82).} Western Grid focuses on the fact the Commission did not base its denial of incentives for LEAPS on the physical characteristics of the pumped storage unit, adding that the Commission concluded that the LEAPS facility constituted “advanced transmission technology identified in section 1223 of EPAct 2005.”\footnote{Id. (citing \textit{Nevada Hydro}, 117 FERC ¶ 61,204 at P 27).}

22. To distinguish the Projects from the pumped storage unit in the \textit{Nevada Hydro} and \textit{Nevada Hydro II}, Western Grid points out that the Projects will be operated so that, unlike the LEAPS facility, the Projects will not compromise the independence of the CAISO or distort energy markets.\footnote{Id. (citing \textit{Nevada Hydro II}, 122 FERC ¶ 61,272 at P 61-62).} Western Grid proposes to turn over certain operational aspects of the Projects to the CAISO. Western Grid states that some of the roles and responsibilities between Western Grid as a PTO, the CAISO, and other PTOs will be defined in a CAISO Transmission Control Agreement.\footnote{Western Grid Petition, Alaywan Affidavit at P 22.} Western Grid states that, at minimum, it will perform the following tasks in relation to the Projects: (1) ensure safe and reliable operation; (2) operate and maintain the protective relaying automatics; (3) perform all planned and forced outage reporting; (4) maintain voltage level; and (5) comply with WECC and NERC reliability standards.\footnote{Id. P 24.} Western Grid adds that the CAISO Transmission Control Agreement will provide that Western Grid will perform all duties associated with the day-to-day operations and maintenance of the Projects, as well as keeping the Projects energized.\footnote{Western Grid Petition at 10, 13-15.} Western Grid explains that the Projects will be operated by Western Grid under the direction of the CAISO, similar to how other wholesale transmission facilities are operated under the direction of the CAISO.\footnote{Id. at 10.} Western Grid adds that the NaS batteries will provide voltage support, rather than capacity, to the CAISO transmission system. Based on these facts, Western Grid concludes that Commission precedent supports a finding that the NaS batteries are an
advanced transmission technology under section 1223 of EPAct 2005, which are entitled to incentive rate treatment.

23. Western Grid also argues that the Projects are different from reliability-must-run (RMR) generation units that, it states, are operated to provide required capacity to a transmission system primarily during capacity shortage conditions. Western Grid states that, instead, the Projects are designed to operate during all types of transmission system conditions, regardless of whether there is a shortage of generation capacity. Therefore, Western Grid contends that the Projects will not receive revenues from selling market services, unlike RMR units that are designated to generate electricity and recover costs through payments for providing energy, capacity, and ancillary services.

24. Finally, Western Grid points to the Texas Public Utilities Commission (Texas PUC) holding that energy storage batteries function as a transmission asset and should be treated as such under Texas PUC rules and precedent. Western Grid claims that the energy storage batteries considered by the Texas PUC are similar to the NaS batteries it proposes to use in the Projects.

2. Comments

25. CAREBS and NEMA support treating energy storage devices as transmission. CAREBS argues that bulk energy storage can optimize existing transmission assets and provide a lower-cost solution to reliability problems than traditional transmission upgrades or construction of new generation. NEMA contends that Western Grid provides credible assurances that the Projects would be operated in a manner consistent with a jurisdictional wholesale transmission facility. NEMA states, however, that the approval of the Projects should not preclude the possibility that other storage technologies may be characterized as non-transmission assets. Because energy storage devices can provide generation and transmission capabilities, NEMA argues that the regulatory framework for these devices should be flexible.

26. The CAISO argues that Western Grid is seeking preferential and discriminatory treatment not afforded to existing storage facilities that provide services similar to the Projects. The CAISO contends that Western Grid has not made a sufficient showing that the Projects are significantly different from pumped storage and other technologies that

33 Western Grid Petition at 16-17 (citing Order of the Texas PUC, Docket No. 35994 (Texas PUC April 6, 2009)). Western Grid states that the Texas PUC based its decision, in part, on the fact that the energy storage batteries provided voltage control support needed for the operation of the transmission system and concluded that NaS batteries will produce reactive power to support the transmission system just like capacitors.
provide similar services and are not treated as transmission facilities. The CAISO argues that a determination of whether to classify the Projects as transmission facilities should depend on how the Projects would operate in the context of the CAISO markets. The CAISO asserts that the services that the Projects would provide are similar to the services that generation, pumped storage and demand response provide. The CAISO adds that, although these services are provided and paid for through the CAISO markets and bilateral transactions, they are not treated as transmission and recovered in transmission rates.

27. The CAISO argues that the Projects appear to combine attributes of both participating load, when consuming energy from the grid to charge, and generation, when producing energy by discharging stored capacity onto the grid or offering ancillary services based on that stored capacity. The CAISO points out that its open access transmission tariff (CAISO Tariff) does not categorize participating generators or load as transmission and does not include the costs of either in its transmission access charge rates. The CAISO states that, instead, these services are provided through the CAISO markets for energy and ancillary services. Modesto argues that the Projects are similar to generation because, when stored energy is released, it uses capacity on the transmission grid, producing real power when discharged. Modesto notes that, like generation, the Projects are measured by their capacity. TANC does not consider energy storage to be transmission because such technology replaces generation.

28. MSR/Santa Clara argue that, while the Petition asserts that the Projects are transmission facilities intended to address reliability issues, Western Grid’s examples of similar projects suggest that the primary purpose of the NaS batteries is to shave peak energy needs. MSR/Santa Clara contend that this objective is achievable through non-transmission resources. Further, MSR/Santa Clara argue that traditional generation could achieve similar results if sited at locations where it would reduce congestion and postpone the need for transmission upgrades.

29. MSR/Santa Clara contend that Western Grid’s attempts to distinguish the Projects from RMR generators are unsubstantiated. Specifically, MSR/Santa Clara note that contractual arrangements created by the CAISO as a means of RMR cost recovery from sources other than transmission customers establish that RMR units are eligible to earn revenues from sales of energy and ancillary services and can set the market clearing price. MSR/Santa Clara assert that similar arrangements could be made between Western Grid and the CAISO for the Projects. MSR/Santa Clara add that the Petition recognizes that revenues for the Projects could be earned through the sale of energy and regulation, thereby reducing costs carried by transmission customers. Finally, MSR/Santa Clara argue that, while Western Grid contends that the Projects are transmission facilities, the CAISO has not yet made a determination that the Projects are eligible for inclusion in the CAISO’s transmission revenue requirement as transmission facilities.
30. Protesters argue that, contrary to Western Grid’s assertion, the Projects are similar to the LEAPS facility in the Nevada Hydro cases, which the Commission did not treat as a transmission asset for the purposes of operating and cost recovery. The CAISO argues that the Projects, like LEAPS, store energy taken from the grid, provide energy to the grid when dispatched, and are capable of offering ancillary services based on their stored energy. The CAISO adds that neither LEAPS nor the Projects are designed to move energy in bulk from generation to load, which is the purpose of a transmission facility.\textsuperscript{34} The CAISO argues that, to the extent the Projects will provide energy, regulation, or contingency-only operating reserve capacity to the grid, they must participate in the CAISO markets.

31. SWP contends that the Projects cannot be deemed to be transmission if they are providing competitive reliability services. SWP argues that, in fact, the Projects and pump storage operation will compete to provide the same reliability services, using the same basic storage concept. SWP adds that, although capacity from pump storage or other resources is a form of reliability service, it cannot be deemed to be transmission. SWP adds that the Petition suggests that the Projects will provide retail distribution by buying and selling energy under retail jurisdiction,\textsuperscript{35} which is outside of the Commission’s wholesale rate regulation jurisdiction.

32. The CAISO questions Western Grid’s assertion that the primary purpose of the Projects is to provide voltage support to address reliability issues because the Projects have the potential to serve other purposes, including regulation up and down and spinning and non-spinning reserve at a fast ramp rate.\textsuperscript{36} The CAISO notes that, under its markets, these products are procured from suppliers of generation and demand response, not from transmission assets and operators. The CAISO adds that, even if the Projects were used primarily for voltage support, they are still similar to pumped storage facilities or generation units and should not be considered transmission facilities.

33. The CAISO also argues that there are significant differences between capacitors and battery storage devices. The CAISO claims that, unlike capacitors, batteries are dispatchable and have the capability to charge and release stored energy in a controlled fashion over a period of time determined by their operator. The CAISO also argues that, unlike capacitors, batteries can participate in ancillary services markets and compete with load, demand response, generators and pumped storage facilities because they can shift

\textsuperscript{34} CAISO December 22, 2009 Protest at 10-11 (CAISO Protest).

\textsuperscript{35} SWP December 22, 2009 Protest at 17 (citing Western Grid Petition, Alaywan Affidavit at P 10) (SWP Protest).

\textsuperscript{36} CAISO Protest at 11.
energy consumption and affect energy imbalance and locational marginal prices for energy on the CAISO system. According to the CAISO, capacitors only release reactive power and do not affect energy imbalance or locational marginal prices because they are passive transmission components that maintain voltage on the transmission system.

34. Multiple protesters object to Western Grid’s reliance on Texas PUC’s finding that a battery storage unit should be classified as a transmission asset. The CAISO points out that Texas is not subject to the Commission’s jurisdiction. The CAISO also argues that the applicability of the Texas PUC decision is undermined because the bundled services provided by the batteries in that proceeding are similar to unbundled services that generation, pumped storage, demand response and non-generation resources provide through the CAISO’s markets. EPSA notes that the Texas PUC stated that it needed more time to consider fully all of the implications of storage.

35. The CAISO also questions the placement of the Projects under its operational control because the operation of the Projects can affect market prices and thus raises issues of CAISO independence and market participant’s perception of the CAISO’s neutrality. The CAISO argues that Western Grid has not made an adequate case for the CAISO to overcome threats to CAISO independence, given the Commission’s rejection of the placement of LEAPS under CAISO operational control in *Nevada Hydro II*. Multiple protesters urge the Commission to follow its approach in *Nevada Hydro* by deferring an initial ruling to functionalize the Projects as transmission and directing the CAISO to initiate a stakeholder process to consider the appropriate treatment of the Projects.

36. The CAISO is concerned that providing Western Grid guaranteed cost recovery through the transmission access charge will place projects with similar characteristics, including other energy storage projects, demand response and generation, at a competitive disadvantage. Further, the CAISO argues that limiting the operation of the Projects to capacitor-like uses would require ratepayers to pay for the full cost of battery storage units without realizing the full benefits those resources provide.

37. The CAISO argues that allowing Western Grid to recover costs and a ROE through rolled-in transmission rates will distort the CAISO’s markets and give Western Grid an economic advantage insofar as the energy from the Projects would be the lowest-price energy available and therefore always selected when offered. According to the CAISO, with costs for the Projects recovered through transmission rates, any energy or ancillary service products provided by the Projects would not be priced at marginal cost and compete in the market for these products. Therefore, the CAISO contends that the energy produced by the Projects would either be bid into the market at zero dollars as a price-taker or would be injected into the CAISO grid like must-take energy.

38. Ice Energy states that, while it agrees that energy storage may constitute transmission facilities in certain circumstances, it is incorrect to state that these devices
must be classified as transmission facilities in order for Western Grid to receive comparable treatment in the CAISO transmission planning process. Ice Energy notes that the Commission has determined that the CAISO’s transmission planning process adequately provides for consideration of demand response alternatives as part of its consideration of reliability and economic additions and upgrades.\footnote{Ice Energy December 22, 2009 Comments at 5 (citing \textit{Cal. Indep. Sys. Operator Corp.}, 123 FERC ¶ 61,283, at P 106 (2008)).} Ice Energy argues that Order No. 890 does not limit “advanced technologies” to transmission and states that Commission intended to require all forms of energy storage that can provide alternatives in the transmission planning process to be eligible to participate. CAREBS and NEMA urge the Commission to ensure that all types of energy storage remain on equal footing with respect to transmission planning and the markets.

39. Several commenters state that the Petition raises important policy questions, adding that the Commission should give proper consideration to the role of storage and should issue a general rulemaking on energy storage devices. PSEG urges the Commission to initiate a technical conference exploring how storage can best participate in the bulk power system and to start developing rules applicable to storage technology. EPSA asserts that any proposed changes affecting the treatment of energy storage devices should be considered and developed through a stakeholder process. EPSA states that the Commission should not act on the Petition until it has developed a record on how treating energy storage devices as transmission facilities could affect market prices, settlement issues, and other emerging storage technologies. Modesto argues that, prior to Commission action, industry participants should be given an opportunity to determine the impacts of the Projects on the grid.

40. TANC argues that other storage technologies will emerge that might seek classification as transmission, adding that such classification could place operators and customers at a disadvantage by favoring one technology over another. TANC adds that misclassifying technology could send wrong price signals to the market, to the detriment of other technologies or customers.

reliability services should be unbundled from transmission to ensure equal opportunities to provide transmission reliability.

42. If the Commission does not reject the Petition, the CAISO requests that the Commission direct that the issues raised in the Petition be considered in an upcoming CAISO stakeholder process that will undertake a comprehensive review of ancillary service products and markets. The CAISO also requests that the Commission direct the CAISO to file a report following the conclusion of that process. The CAISO states that it is currently evaluating pilot programs that would permit the CAISO to study the operations of these resources and evaluate their participation in the markets and impacts on the CAISO grid, which would allow the CAISO to determine the appropriate role of storage going-forward.

3. Commission Determination

43. We find that, based on the specific circumstances and characteristics of the Projects, the Projects would be wholesale transmission facilities subject to the Commission’s jurisdiction if operated as described by Western Grid. Western Grid has put forth a proposal that is unique thus far in terms of how it utilizes storage technology to mimic a wholesale transmission function. In reaching this conclusion, we have considered the specific way in which the Projects’ NaS batteries will be operated and Western Grid’s proposed cost recovery methodology. Our finding here that this particular project is transmission is limited to the facts presented by Western Grid in this proceeding.

44. We note that electricity storage devices, such as those that will be used in the Projects, do not readily fit into only one of the traditional asset functions of generation, transmission or distribution. Under certain circumstances, storage devices can resemble

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39 The CAISO states that it intends to initiate a stakeholder process in the second quarter of 2010 and that it will conduct this initiative to examine issues regarding how ancillary service product definitions and markets may need to be changed to: (1) enable the CAISO to obtain services from resources with the performance capabilities needed to operate the grid reliably as the mix of resources changes in response to environmental policy goals and technological change; and (2) efficiently accommodate new technologies that are able to provide needed ancillary services to support reliable grid operation. CAISO Protest at 24-25.
any of these functions or even load. For this reason, the Commission has addressed the classification of energy storage devices on a case-by-case basis.\footnote{See, e.g., Nevada Hydro II, 122 FERC ¶ 61,272 at P 84.}

45. Here, Western Grid proposes to operate the Projects under the direction of the CAISO in a similar manner to the way in which high-voltage wholesale transmission facilities are operated by PTOs under the direction of the CAISO. Western Grid states that these are the only ways in which it will operate the Projects. These functions are consistent with the CAISO’s operating obligations with other transmission assets. Western Grid will be responsible for all operating functions, including maintenance, communication, and system emergencies. Most importantly, Western Grid will be responsible for energizing the NaS batteries used in the Projects.\footnote{Western Grid Petition at 15; Alaywan Affidavit at P 23, 25. We note that, should Western Grid’s Projects be approved through the CAISO’s transmission planning process, the CAISO Tariff requires Western Grid to enter into a Transmission Control Agreement with the CAISO, which would be filed with the Commission pursuant to FPA section 205. The CAISO Tariff sets forth a \textit{pro forma} Transmission Control Agreement that contains the parameters of the transmission owner’s relationship with the CAISO including penalties and sanctions on PTOs by reference to their availability. The required Transmission Control Agreement between Western Grid and the CAISO would further set forth the specifics of Western Grid’s expected operations of the Projects, including penalties in the event of Western Grid’s non-performance when called upon by the CAISO. See CAISO Transmission Control Agreement, section 14.4 (Incentives and Penalties); Appendix C, section 9 (Incentives and Penalties), \textit{available at} http://www.caiso.com/docs/09003a6080/25/a3/09003a608025a3bd.pdf.} Because of this, the independence of the CAISO will be maintained, as the CAISO will not be responsible for buying power to energize the Projects, or physically operating the batteries when they are being charged and discharged. Importantly, Western Grid will operate the Projects, at the CAISO’s direction, only as transmission assets.\footnote{Western Grid Petition at 10, 12.} They will be operated in a way that is similar to the operation of other transmission assets (e.g., capacitors that address voltage issues or alternate transmission circuits that address line overloads or trips).

46. Also, just like other transmission assets, and unlike traditional generation assets, Western Grid will not retain revenues outside of the transmission access charge, and it will credit any revenues it may accrue as a result of charging/discharging the Projects through its PTO tariff.\footnote{Id. at 12.} In particular, it will not arbitrage wholesale energy market
Accordingly, these particular facilities, operated in the particular manner proposed here, function as transmission.

47. Regarding the comparison of the Projects to capacitor banks, the Commission has previously found capacitors to be transmission equipment. We do not dispute protesters’ claims that the Projects share some characteristics with generation or are not identical to transmission assets such as capacitors. As we noted above, storage devices do not fit neatly into a traditional category of assets, be it transmission, generation, or distribution, given their ability to perform multiple functions. However, the Projects as Western Grid proposes to operate them do share some important characteristics with capacitors. Furthermore, we reiterate that the Commission has considered many factors on a case-by-case basis including the method by which storage devices are operated in determining if the particular storage project should be classified as transmission or not. As noted above, the CAISO will be responsible for directing when the Projects need to be called upon in the same manner as it would other transmission assets. Further, Western Grid states that the Projects will be used to provide voltage support and to address thermal overload situations, at the CAISO’s instruction. Operation of the Projects for these specific uses, combined with the pass through of any incidental market revenues to customers through a PTO tariff, leads the Commission to conclude that the Projects are appropriately considered transmission.

48. We find that the facts and circumstances in this case are sufficiently distinguishable from those in Nevada Hydro, so as to justify the different result here. An important issue that arose in Nevada Hydro – and is echoed by protesters here – involves the question of whether the CAISO’s operation of the LEAPS storage facility would render it an energy market participant. Nevada Hydro proposed that the CAISO would decide when to charge and discharge the facility and would therefore have influence over the prices paid and received during those operations. Nevada Hydro also did not propose any mechanism to deal with the potential costs and revenues from such market operations, which could have left the CAISO in the position of being a profit-seeking

44 Id. at 15.

45 See Southern Company, 80 FERC ¶ 61,318, 62,080 n.6.

46 See Western Grid Petition. at 7.

47 See Nevada Hydro, 117 FERC ¶ 61,204 at P 28-32; see also Nevada Hydro II, 122 FERC ¶ 61,272 at P 82-83.
operator of the LEAPS facility. Under those circumstances, the Commission agreed that it would be inappropriate for the CAISO to assume this degree of control.  

49. Western Grid’s proposal eliminates this concern. Here, Western Grid itself will maintain the state of charge of its storage facilities that it (rather than CAISO) will arrange and purchase. Additionally, it will credit any incidental net revenues from such transactions to its customers via the transmission access charge. Therefore, there is little likelihood here that the CAISO will become a profit-seeking energy market participant, and we disagree with CAISO’s argument to the contrary.

50. For this reason, the claims of the CAISO and SWP, among others, that an affirmative finding here will provide undue preference and discriminatory treatment to the Projects are unfounded. In claiming discriminatory treatment, protesters charge that the Projects will be guaranteed rate recovery for providing services similar to those of generation and pumped storage in competitive markets. This is not the case here. Generation and SWP’s participating load both participate in CAISO markets and provide energy to the grid. The Projects will not be bid into the CAISO markets or be a market participant in any way; instead, they will only be operated at the CAISO’s request when system reliability issues require them to provide voltage support to the grid.  

51. Similarly, protesters note that the Projects will be capable of not only providing voltage support but also energy and other ancillary services products. But as proposed, Western Grid will not be bidding the Projects into the CAISO markets and Western Grid’s Projects will be used to provide voltage support and to address thermal overload situations, at the CAISO’s instruction, which will only arise if there is no other competitive bid to provide that service through the markets. Thus, the Projects will not be undercutting competitive bids by market participants.

52. We disagree with MSR/Santa Clara’s assertion that strategically-located generation or energy efficiency would necessarily qualify as transmission under the reasoning Western Grid uses to argue that the Projects are transmission. Again, the Commission has considered numerous factors in determining whether energy storage devices should be considered transmission including the way in which they are operated, the specific use of the project and the proposed cost recovery mechanism of the project sponsor. The Projects are being proposed to function as transmission by addressing

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48 See Nevada Hydro II, 122 FERC ¶ 61,272 at P 82.

49 Western Grid Petition at 13, 15.

50 Id. at 7.
reliability concerns on the transmission grid through provision of voltage support and remaining revenue neutral in the CAISO markets. By contrast, generation is built almost exclusively to produce electricity and has limited shared characteristics with transmission. Participating load projects also have historically not operated as transmission assets and have taken advantage of CAISO markets.

53. The CAISO’s argument that limiting the operation of the Projects to providing capacitor-like services would be inefficient is either premature or unfounded. The Projects will be subject to review and approval by the CAISO in its transmission planning process. Pursuant to CAISO Tariff section 24.1.1, the CAISO will not approve the Projects if a superior alternative project is proposed or if the Projects do not pass a cost-benefit analysis. Thus, if the CAISO approves the Projects, they would be paid for by ratepayers because the CAISO had found that they were the most efficient solution proposed.

54. We do not rely on the decision of the Texas PUC in making our findings. The Texas PUC approved that project before it on a case-by-case basis. We do not have the record of the case before us for consideration. Furthermore, the Texas PUC decisions are not precedential before the Commission.

55. SWP’s argument that the Projects are not jurisdictional because they will serve retail load is a misinterpretation of the Petition. Western Grid clearly states that the Projects will provide “voltage control support needed for the operation of the transmission system.”\(^{51}\) In addition, Western Grid states that the Projects are capable of resolving reliability concerns by, among other things, mitigating normal transmission overload, addressing transmission line trips, and reacting to voltage dips.\(^{52}\) These functions are wholesale transmission functions that qualify the Projects as jurisdictional wholesale transmission.

56. Lastly, we turn to commenters’ request that the Commission defer action until the Commission institutes a more general proceeding (e.g., a rulemaking or technical conference) or to allow for the 2010 CAISO stakeholder process to consider this issue, among others, related to storage assets. We find no reason to defer action here. As noted above, our determination here is strictly limited to the specific circumstances identified by the applicant. In no way do we intend to classify all energy storage devices as transmission or otherwise. Also, nothing here precludes a general rulemaking in the future. Regarding the CAISO stakeholder process, we encourage the CAISO and its participants to explore these issues, and others, related to storage.

\(^{51}\) Western Grid Petition at 10; Perez Affidavit at P 25-30.

\(^{52}\) Western Grid Petition at 7.
D. FPA Section 219 Requirement

57. In Order No. 679, the Commission stated that an applicant for transmission rate incentives must demonstrate that the facilities for which it seeks incentives satisfy the requirements of FPA section 219 by either ensuring reliability or reducing the cost of delivered power by reducing transmission congestion. The Commission established a rebuttable presumption that a project is eligible for incentives under FPA section 219 if it: (1) results from a fair and open regional transmission planning process that considers and evaluates projects for reliability and/or congestion and is found to be acceptable to the Commission; or (2) has received construction approval from an appropriate state commission or state siting authority. The Commission also stated that it will consider incentive requests for projects that are still undergoing consideration in a regional transmission planning process but may make any requested incentive rate treatment contingent on the project being approved under the regional transmission planning process. However, the Commission has stated that a project that does not qualify for the rebuttable presumption may nevertheless satisfy the FPA section 219 standards if the project sponsor presents a factual record supporting a finding that the project is needed to maintain reliability or reduce congestion. In order to meet this requirement, a project sponsor may present detailed studies, engineering affidavits, or state siting approvals demonstrating that the FPA section 219 criteria are met.

1. Western Grid’s Proposal

58. Western Grid argues that the Projects should be eligible for incentives under FPA section 219 and Order No. 679. Western Grid asserts that the Projects meet all of the Commission’s requirements for incentives because the Projects involve innovative


54 Id. In Order No. 679-A, the Commission clarified the operation of this rebuttable presumption by noting that the authorities and/or processes on which it is based (i.e., a regional transmission planning process, a state commission, or siting authority) must, in fact, consider whether the project ensures reliability or reduces the cost of delivered power by reducing congestion. Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 49.

55 Order No. 679, FERC Stats. & Regs. ¶ 31,222 at n.39.

56 Id. P 57.

57 See Duquesne Light Co., 118 FERC ¶ 61,087, at P 68 (2007); see also Green Power Express, 127 FERC ¶ 61,031 at P 41.
advanced transmission technology and are narrowly tailored to address the early-stage
development risks and challenges faced by Western Grid as an independent transmission
developer.

59. Western Grid states that the Projects employ advanced technological innovations,
adding that the transmission rates for the Projects will be similar to those in place for
other innovative transmission system upgrades. Western Grid contends that the
benefits of the Projects include use of low cost, off-peak energy to charge the NaS
batteries, which are capable of discharging during on-peak hours when reliability needs
are present. Western Grid argues that the application of smart grid technology in the
Projects has significant environmental benefits and avoids the complex and prolonged
environmental review associated with traditional reliability solutions.

60. Western Grid asserts that the cost of the NaS batteries used in the Projects is
considerably lower than traditional utility alternatives. According to Western Grid, the
deployment of the NaS batteries at strategic locations on the CAISO grid where
traditional transmission solutions are less cost-effective will lead to a reduction in cost of
manufacturing energy storage devices, which will further reduce the costs of maintaining
transmission reliability with energy storage devices, to the benefit of ratepayers.
Moreover, Western Grid contends that the Projects can be implemented in less than a
year and therefore be in operation prior to any proposed utility solution.

2. Comments

61. Multiple protesters argue that the Commission should deny the Petition until
Western Grid can satisfy the requirements of FPA section 219 by demonstrating that the
Projects reduce the cost of delivered power by reducing congestion. SoCal Edison
contests that Western Grid does not discuss the size of the Projects, the cost of the
technology as compared to traditional transmission solutions, or anything substantive that
would allow a thorough analysis of whether the Projects could be considered economic or
cost effective. SoCal Edison states that the Petition provides no analysis of the costs of
the Projects or any economic benefits to the transmission grid. SoCal Edison asserts that,
instead, the Petition generally discusses a hypothetical cost scenario that compares the
cost of energy storage devices with a hypothetical transmission upgrade.

62. SoCal Edison argues that the Petition contains no analysis or evidence of reduced
production costs, congestion costs, transmission losses, capacity, or other electric supply

58 Western Grid Petition at 19 (citing Duquesne Light Co., 125 FERC ¶ 61,028, at
P 19 (2008) (Duquesne Light)).

59 Id. at 20.
costs and does not establish that the Projects will allow access to more cost-effective resources. Further, SoCal Edison asserts that Western Grid’s claim that the Projects would be less expensive than a traditional transmission solution does not meet the requirements of FPA section 219. SoCal Edison contends that the Petition does not identify the reliability issues that the Projects are intended to address nor does it make the required showing that the Projects will enhance reliability.

63. MSR/Santa Clara argue that Western Grid has made no attempt to show that the Projects qualify for a presumption of eligibility for incentives. According to MSW/Santa Clara, Western Grid has provided no evidence that that Projects have been approved by a fair and open regional transmission planning process that considers and evaluates projects for reliability and/or congestion and is found to be acceptable to the Commission. MSR/Santa Clara contend that the Petition contains no evidence that the Projects have received construction approval from an appropriate state commission or state siting authority. Therefore, MSR/Santa Clara concludes that Western Grid has not met the requirements of FPA section 219 and is ineligible for transmission incentives.

64. MSR/Santa Clara also argue that Western Grid has not presented adequately detailed studies, engineering affidavits or state siting approvals to satisfy the threshold requirements of FPA section 219. MSR/Santa Clara state that the Petition provides no studies demonstrating congestion reduction, reliability improvements or cost savings for real-life projects. MSR/Santa Clara further state that no internal or external studies have been provided showing the benefits of the Project’s technology in maintaining the reliability of a balancing authority. As such, MSR/Santa Clara argue that Western Grid has failed not only to meet the rebuttable presumption under FPA section 219 but also to demonstrate that it meets the threshold requirements for incentive rate treatment. Therefore, MSR/Santa Clara argue that the Commission should reject Western Grid’s request for incentive rate treatment.

65. TANC argues that Western Grid’s reliance on Duquesne Light to support its request for incentives is inapposite. TANC contends that, unlike Western Grid, the applicant in Duquesne Light did not request incentives for deployment of advanced technologies. Further, TANC contends that Western Grid has not provided evidence or sufficient analysis that its requested incentive rates would fall within the range of reasonableness. TANC claims that, absent the submission of a properly-prepared discounted cash flow analysis, Western Grid’s request for specific rate incentives cannot be determined to be consistent with Commission policy and cannot be approved. TANC urges the Commission to defer or reject the request for incentive rates pending Western Grid’s submission of adequate costs studies.

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60 TANC December 22, 2009 Protest at 10 (citing Duquesne Light., 125 FERC ¶ 61,028 at P 14).
66. TANC states that, to the extent Western Grid’s recovery of costs through the CAISO’s transmission access charge is a condition precedent for development of the Project, there is not sufficient indication that Western Grid’s projects are viable. TANC argues that, because the CAISO has not considered and determined whether battery storage should be subject to its operational control with the cost of such facilities recovered through the transmission access charge, Western Grid cannot represent that it seeks incentive rates for a viable project. TANC contends that, until the Commission determines that sufficient evidence exists to determine the Projects’ viability, it should refrain from granting incentive rates.

3. Commission Determination

67. Because the Projects have not received approval through the CAISO’s transmission planning process or received construction approval from the relevant state authorities, Western Grid is not entitled to the rebuttable presumption that the Projects are needed to maintain reliability or reduce congestion. Consequently, to meet the requirements of FPA section 219, Western Grid must provide a factual record sufficient to support a finding that the Projects are needed.61

68. The Commission has previously granted requests for rate incentives for projects that have not relied on FPA section 219’s rebuttable presumptions. However, in those cases, the applicants clearly demonstrated reliability or congestion concerns that the proposed project would address and supported such assertions with comprehensive and clear data, as well as internal and, in several cases, external studies. For example, in Green Power Express, the Commission found that the project met the FPA section 219 requirement based on studies and an engineering affidavit submitted by the applicant that showed the impact of the proposed transmission project on the existing network and demonstrated the project’s ability to relieve congestion on Department of Energy-identified congested paths.62 In addition, the applicant in that proceeding submitted an outside study by the Brattle Group that confirmed the applicant’s own results. In Pioneer,63 the Commission found that the applicant had provided sufficient information to demonstrate the project’s reliability and congestion benefits, such as comprehensive power flow analyses that the Commission could use to verify the applicant’s contention that its project ensured reliability or reduced the cost of delivered power by reducing

61 Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 57.

62 See Green Power Express, 127 FERC ¶ 61,031 at P 41.

congestion.\textsuperscript{64} Finally, in Tallgrass,\textsuperscript{65} the Commission similarly concluded that the applicant had satisfied the FPA section 219 requirement based on both the data presented in the filing and the project’s similarity with other transmission projects studied by the Southwest Power Pool, the relevant RTO in that proceeding.\textsuperscript{66}

69. By contrast, in several recent cases, project applicants have neither relied on FPA section 219’s rebuttable presumptions nor made a sufficient demonstration that proposed projects would ensure reliability or reduce the price of delivered power by reducing congestion. In Green Energy Express, the Commission found that the economic and feasibility studies supplied by the applicant contained minimal details and could not support a determination that the project ensured reliability or reduced the price of delivered power by reducing congestion.\textsuperscript{67} In SoCal Edison,\textsuperscript{68} the Commission found that the system impact studies provided by the applicant were not sufficiently comprehensive to satisfy the requirements of section 219. Noting those shortcomings, the Commission in both cases conditionally granted requested incentives contingent on approval of the projects in the CAISO’s transmission planning process, stating that the CAISO’s transmission planning process may adequately consider the reliability and congestion-relieving impacts of the proposed projects.

70. Here, Western Grid has not provided the Commission with the necessary support to determine whether the Projects ensure reliability or reduce the price of delivered power by reducing congestion.\textsuperscript{69} Western Grid has provided several affidavits and supporting exhibits; however, the information provided by Western Grid is significantly less comprehensive than the above-noted studies that the Commission found sufficient to satisfy the FPA section 219 requirement when an applicant was not entitled to a rebuttable presumption under Order No. 679. For example, Western Grid offers no indication of the broader impacts that the Projects or energy storage devices will have on

\textsuperscript{64} See id. P 37-38.

\textsuperscript{65} See Tallgrass Transmission, LLC, 125 FERC ¶ 61,248, at P 42 (2008) (Tallgrass), reh’g pending.

\textsuperscript{66} See Pioneer, 126 FERC ¶ 61,281 at P 37.

\textsuperscript{67} Green Energy Express, 129 FERC ¶ 61,165 at P 27-28.

\textsuperscript{68} Southern California Edison Co., 129 FERC ¶ 61,246, at 27-28 (2009) (SoCal Edison).

\textsuperscript{69} See, e.g., id.
the CAISO system. Moreover, Western Grid provides no substantive analysis or evidence of reduced congestion or costs, nor does it identify the reliability issues that the Projects are proposed to address or sufficiently demonstrate reliability improvements. Accordingly, we cannot find that the Projects satisfy the FPA section 219 requirement.  

70. However, because the CAISO’s transmission planning process will adequately consider the reliability and congestion-relieving impacts of the Projects, the Commission will conditionally grant the incentives requested by Western Grid, with the exception of the abandoned plant incentive, subject to their approval in the CAISO transmission planning process. We direct Western Grid to submit a filing within 30 days of the approval of the Projects in the CAISO’s transmission planning process.  

71. If the Projects are approved in the CAISO’s transmission planning process, Western Grid must provide 

70 Our decision here does not preclude Western Grid from submitting additional support in a new proceeding to satisfy these FPA section 219 requirements.  

71 We reiterate that our findings here do not predetermine the outcome of the CAISO’s transmission planning process. The CAISO Tariff sets forth that the CAISO Governing Board or management will independently determine whether to approve economically driven projects such as the Projects:

In determining whether to approve the project, the CAISO Governing Board or CAISO management, as applicable, shall consider the degree to which, if any, the benefits of the project outweigh the costs, in accordance with the procedures and using the technical studies set forth in the Business Practice Manual. [. . . ] The CAISO management or CAISO Governing Board, as appropriate, in determining whether to approve or recommend the project, shall also consider the comparative costs and benefits of viable alternatives to the proposed transmission upgrade or addition, including (1) other transmission additions or upgrades, or the effects of other transmission additions or upgrades proposed under Section 24.2 during the Transmission Planning Process cycle, (2) Demand-side management, (3) acceleration or expansion of any transmission upgrade or addition already approved by the CAISO Governing Board or included in any CAISO annual Transmission Plan, or (4) Generation. 

CAISO Tariff section 24.1.1(b) (Economically Driven Projects).  

In its determination of benefits, the CAISO should consider the benefits associated only with Western Grid’s proposed use of its facilities as proposed in its Petition (i.e., the Projects will be used to provide voltage support and to address thermal overload situations, at the CAISO’s instruction).
in its filing evidence not only that the Projects were approved in the CAISO’s transmission planning process but also that the transmission planning process included a finding that the Projects will ensure reliability or reduce the cost of delivered power by mitigating congestion, consistent with Order No. 679-A.\textsuperscript{72}

E. **Nexus Requirement and Requested Incentives**

72. In addition to satisfying FPA section 219’s requirement that a project ensure reliability or reduce the cost of delivered power by reducing congestion, an applicant must demonstrate that there is a nexus between the incentive sought and the investment being made. In Order No. 679-A, the Commission clarified that the nexus test is met when an applicant demonstrates that the total package of incentives requested is “tailored to address the demonstrable risks or challenges faced by the applicant.”\textsuperscript{73}

73. As part of the evaluation of whether the incentives requested are tailored to address the demonstrable risks or challenges faced by the applicant, the Commission has found the question of whether a project is “routine” to be particularly probative. In \textit{BG&E}, the Commission provided guidance on the factors that it will consider when determining whether a project is routine.\textsuperscript{74} The Commission stated that it will consider all relevant factors presented by the applicant, including evidence on: (1) the scope of the project (e.g., dollar investment, increase in transfer capability, involvement of multiple entities or jurisdictions, size, effect on region); (2) the effect of the project (e.g., improving reliability or reducing congestion costs); and (3) the challenges or risks faced by the project (e.g., siting, long lead times, regulatory and political risks, specific financing challenges, other impediments). The Commission also explained that, when an applicant has adequately demonstrated that the project for which it requests an incentive is not routine, that applicant has shown, for purposes of the nexus test, that the project faces risks and challenges that merit an incentive.\textsuperscript{75}

74. Based on the evidence, we find that Western Grid has demonstrated that the Projects are not routine. We also conclude that Western Grid has demonstrated that the


\textsuperscript{73} Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 40.


\textsuperscript{75} Id. P 54.
total package of incentives, as conditioned in this order and with the exception of the abandoned plant incentive, is tailored to the risks and challenges faced by the Projects. We discuss below our finding that the Projects are not routine and the nexus between each requested incentive and the particular risks and challenges Western Grid faces in connection with the Projects.

1. **Western Grid’s Overview of Proposal**

75. Western Grid argues that there is a clear nexus between the requested incentives and the Projects. Western Grid contends that the rate treatment sought is necessary to obtain new capital investment, to continue development through the CAISO transmission planning process, and to establish a regulatory foundation to ultimately obtain permanent financing for the Projects if the necessary CAISO and government approvals are obtained.\(^{76}\)

76. Western Grid argues that it faces significant development risks because it is a start-up company funded by its principals, who have borne all development costs to date. Western Grid notes that it has been actively working to secure new capital investment which, it states, is necessary in order to continue the development process. Western Grid claims it faces risk and uncertainty in development and construction of the Projects, especially compared to a traditional investor-owned utility or other transmission owners with a current, on-going revenue stream. Western Grid contends that, if it is not permitted to recover up-front costs (i.e., through recovery of pre-commercial expenses in its transmission “rate base”) through regulatory rate incentives, it will be forced to finance the estimated $250 million in development and construction costs through equity infusions and debt financing which, Western Grid claims, would be significantly costly given the state of financial markets.

77. Western Grid argues that the ability to recover costs if the Projects are abandoned due to factors beyond the control of Western Grid is very likely to be a determinative factor when the investors evaluate the risks involved in investing in the Projects.

2. **Construction Work In Progress**

a. **Western Grid’s Proposal**

78. Western Grid claims that there is a nexus between its investment in the Projects and its request to include 100 percent of CWIP in rate base. Western Grid argues that recovery of 100 percent of CWIP will provide predictable and stable levels of cash flow during the construction period of the Projects. Western Grid notes that the Commission

\(^{76}\) Western Grid Petition at 20-21.
has found that earning a return on 100 percent CWIP during construction significantly improves cash flow stability during a period in which a project incurs substantial capital expenditures. Western Grid argues that recovery of 100 percent of CWIP would allow it to begin generating cash with which to service debt, and would reduce the required amount of external capital.

b. Commission Determination

79. In Order No. 679, the Commission established a policy that allows utilities to include, where appropriate, 100 percent of prudently-incurred transmission-related CWIP in rate base. The Commission stated that this rate treatment will further the goals of FPA section 219 by providing up-front regulatory certainty, rate stability, and improved cash flow, reducing the pressures on an applicant’s finances caused by investing in transmission projects.

80. In Order No. 679, the Commission stated that it will consider each proposal on the basis of the particular facts of the case. Considering the size of Western Grid as a start-up venture and its investment in the Projects, we find that authorization of the CWIP incentive is appropriate to assist in the construction of the Projects. Western Grid estimates that the Projects will cost up to $250 million in development and construction costs. These costs will put significant pressure on Western Grid’s finances as a start-up company. Consistent with Order No. 679, we find that authorizing recovery of 100 percent of CWIP for the Projects will facilitate Western Grid receiving an investment grade credit rating sooner, improve cash flow, and lower borrowing costs. Granting the CWIP incentive will help ease financial pressure by providing upfront certainty as Western Grid moves forward with the Projects.

81. Accordingly, we find the Projects are eligible to recover 100 percent of CWIP in rate base contingent on the Projects’ approval in the CAISO transmission planning process, discussed above. Our acceptance of Western Grid’s proposal to recover 100 percent of CWIP in rate base is also conditioned upon Western Grid fulfilling the

77 Western Grid Petition at 26 (citing Green Power Express, 127 FERC 61,031 at P 66).

78 Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 29, 117.

79 Id. P 115.

80 Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 117.

81 See Green Power Express, 127 FERC ¶ 61,031 at P 66.
Commission’s requirements for CWIP inclusion for these transmission facilities in a future filing under FPA section 205.\(^{82}\) In such future filing, we direct Western Grid to include the CWIP for the Projects in a stand-alone balance account mechanism.

3. **Abandoned Cost Recovery**

   a. **Western Grid’s Proposal**

   82. Western Grid seeks 100 percent recovery of its prudently incurred costs for the Projects if they are cancelled or abandoned for reasons outside of its control.\(^{83}\) Western Grid states that it continues to incur costs to obtain necessary regulatory approvals for the Projects and participate in regional transmission planning processes and can only continue to make these expenditures if there is some assurance of recovering prudently-incurred costs if it has to abandon the Projects.

   83. Western Grid states that the abandoned plant incentive is appropriate because the Projects face significant risks and may be impacted by otherwise location-constrained renewable generation resources that currently are in early planning and development stages. Western Grid argues that the Projects face possible revenue effects due to changes in federal tax policy for renewable generation, energy markets, and capital markets. Western Grid contends that the abandonment incentive would protect it from losing prudently-incurred investment costs, ensure the availability of financing at reasonable terms in the current financial climate, and provide additional assurance to lenders and investors that any prudently-incurred costs will be recovered.

   84. Western Grid asserts that the Commission, in *Green Power Express*, recognized that risks associated with transmission projects are magnified by the uncertainty of final development of the interconnecting generation projects and noted that the abandonment incentive assisted in reducing these risks by providing some degree of certainty as the projects move forward.\(^{84}\)

   b. **Comments**

   85. Six Cities and Modesto argue that Commission approval of the abandonment incentive would shift costs associated with the Projects from the developers to the

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\(^{83}\) Western Grid Petition at 27-28.

\(^{84}\) *Id.* at 27 (citing *Green Power Express*, 127 FERC ¶ 61,031 at P 51).
CAISO’s transmission customers. Six Cities adds that, at this point, it’s unclear whether or not the Projects will be approved through the CAISO transmission planning process. MSR/Santa Clara contend that granting the abandonment incentive would be unreasonable given the hypothetical nature of the Projects. MSR/Santa Clara argue that Western Grid could incur unlimited costs attempting to replace the need for transmission upgrades by proposing battery storage solutions and assert that abandonment recovery was not designed to protect entities from poorly developed business plans.

86. CMUA argues that, given the fundamental questions regarding the Projects and the fact that the Projects have not gone through the CAISO transmission planning process, the recovery of fees is unwarranted. CMUA contends that, while permitting recovery of development and abandonment costs for projects evaluated and approved under the CAISO transmission planning process may be justified, requiring transmission customers to cover the expenses for every project that may be presented in the transmission planning process is not.

c. **Commission Determination**

87. In Order No. 679, the Commission found that the abandonment incentive is an effective means of encouraging transmission development by reducing the risk of non-recovery of costs.\(^{85}\) However, the Commission stated that it would address each request for abandoned cost recovery on a case-by-case basis to adequately discipline investment decisions.\(^{86}\) At this time, we find that Western Grid has failed to adequately demonstrate that it faces adequate risk factors beyond its control that would endanger the completion of the Projects.

88. In Order No. 679, the Commission found that “we will not prescribe specific rules to govern” our case-by-case evaluation of requests for abandoned cost recovery.\(^{87}\) In granting approval of a request for abandoned cost recovery, the Commission found in *Green Power Express* that:

> A primary purpose of [Green Power’s project] is to interconnect wind generation being developed in the northern Great Plains and upper Midwest, and therefore, [Green Power’s project] faces risks associated with generation developers’ decisions to develop or terminate wind projects in that region. Given the geographic scope of [Green Power’s project], Green

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\(^{85}\) Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 163.

\(^{86}\) *Id.* P 164.

\(^{87}\) *Id.* P 165.
Power will need to obtain approvals and siting authorizations in various states: North Dakota, South Dakota, Minnesota, Iowa, Wisconsin, Illinois, and Indiana.\(^{88}\)

89. Here, we find that Western Grid has not shown that it faces significant risk of abandonment for reasons beyond its control. Instead, Western Grid attempts to support its request for recovery of abandonment costs by noting that that the Projects may be “impacted by otherwise-location constrained generation resources that currently are in early planning and development stages.” Western Grid has not demonstrated that the completion of the Projects is dependent in any way on the status of various other generation projects currently in the planning and development stages. We also note that, although Western Grid states that it needs to obtain regulatory approvals, it has acknowledged that the advanced technology in the Projects “does not require Federal/state permits.”\(^{89}\) Western Grid also asserts that the Projects face possible adverse revenue effects due to changes in federal tax policy for renewable generation, energy markets, and capital markets. Potential tax changes are also not the type of risk the Commission considered in Order No. 679 or in any other proceeding addressing abandoned cost recovery requests. In addition, Western Grid does not make clear how any such tax risk would affect the Projects specifically, whether such tax risk is exclusive to the Projects or whether there is risk that a change in the tax liability of the Projects would be so significant as to force abandonment of the Projects. Thus, we deny Western Grid’s request at this time. However, Western Grid may re-apply for this incentive if Western Grid can make an adequate showing of the risks it faces that would justify recovery of prudently-incurred costs following abandonment of the Projects.

4. **ROE Incentive Adders**

a. **Western Grid’s Proposal**

90. Western Grid requests that the Commission grant a 195 basis-point ROE adder for the Projects. Western Grid contends that it has modeled its requested ROE adders on those typically granted for similar transmission projects. Western Grid states that it will propose a specific ROE level when it makes a FPA section 205 filing as a CAISO PTO.

\(^{88}\) *Green Power Express*, 127 FERC ¶ 61,031 at P 51.

\(^{89}\) Western Grid Petition at 7; *see also id.* at 21, 24 and 27.
91. Western Grid requests a 50 basis-point adder for future participation in an RTO which, it states, the Commission routinely provides for RTO participation. Western Grid explains that it commits to becoming a PTO under the CAISO Tariff and to operate the Projects under the CAISO’s direction. Western Grid states that these actions make it eligible for a 50 basis-point ROE adder for participating in transmission organization, in accordance with FPA section 219 and Order No. 679.

92. Western Grid notes that Order No. 679 indicates that the Commission will provide incentive rate treatment for Transco formation. Western Grid states that the Commission has frequently provided an incentive for Transco formation in the form of a 100 basis-point ROE adder. Western Grid explains that it is a stand-alone transmission company that will sell transmission service at wholesale, with no generation assets, no franchised service territory, and no retail customers. Western Grid also points out that its sole business is the development, financing, construction and operation of the Projects (and possibly future related transmission projects). Because its business structure is consistent with the Commission’s definition of a Transco, Western Grid asserts that it is eligible for a 100 basis-point ROE adder.

93. Western Grid seeks an additional 45 basis-point ROE adder to reflect the incorporation of an advanced transmission technology which, it states, is consistent with smart grid policy and EPAct 2005, and will benefit California ratepayers. Western Grid contends that there are risks and challenges associated with the Projects because the transmission benefits that energy storage devices can provide are often overlooked. Western Grid adds that the Commission’s smart grid policy recognized the importance of energy storage devices in addressing transmission issues.

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91 In Order No. 679, the Commission defined a Transco as a stand-alone transmission company that has been approved by the Commission and that sells transmission service at wholesale and/or on an unbundled retail basis. See Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 201.

92 Western Grid Petition at 30-31 (citing NYRI, 124 FERC ¶ 61,259 at P 41).

93 Id. at 6 (citing Smart Grid Policy Statement, 128 FERC ¶ 61,060, at P 81 (2009)).
b. **Protests**

94. Modesto contends that Western Grid’s request for 50 basis-points for RTO participation is premature, adding that Western Grid has only committed to becoming a PTO and that there is no certainty that its application will be approved. Six Cities argue that additional ROE adders of 145 basis points based on application of innovative technology and Transco formation would be duplicative and excessive given the other incentive mechanisms being pursued by Western Grid. MSR/Santa Clara argue that, because Western Grid has provided insufficient information on the costs of its Projects or the impact they will have on the grid, the specifics of Western Grid’s requested incentives cannot be addressed.

c. **Commission Determination**

95. Western Grid has stated that it will become a PTO. In Order No. 679, the Commission states that it would authorize incentive-based rate treatment for public utilities that are or will continue to be members of transmission organizations. Therefore, if the Projects receive approval in the CAISO’s transmission planning process, Western Grid becomes a PTO, and Western Grid’s overall ROE is within the zone of reasonable returns (which will be determined when it makes its future FPA section 205 filing), we find that Western Grid is eligible for a 50 basis point ROE adder reflecting its participation in the CAISO.

96. Western Grid is correct that the Commission has encouraged the formation of Transcos, finding that their unique combination of a for-profit business model and a sole focus on developing transmission assets would help remedy the need for transmission investment. In this case, we find that Western Grid is a Transco. Western Grid is a stand-alone entity, the sole purpose of which is to develop the Projects. Accordingly, we will grant it the 100 basis-point incentive adder that we have provided for Transco formation in other rate incentive proceedings, conditioned on the Projects being approved in the CAISO’s transmission planning process, as discussed above, and subject

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94 See Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 86; see also Green Power Express, 127 FERC ¶ 61,031 at P 85; Tallgrass, 125 FERC ¶ 61,248 at P 58.


96 See Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 201.

97 See, e.g., Green Power Express, 127 FERC ¶ 61,031 at P 86; ITC, 126 FERC ¶ 61,223 at P 93.
to Western Grid’s overall ROE being within the zone of reasonable returns, which will be determined when it makes its future FPA section 205 filing.

97. The Commission has found that, in reviewing requests for separate incentive ROE adders for advanced technology, the Commission reviews record evidence to decide if the proposed technology warrants a separate adder because it reflects a new or innovative domestic use of the technology that will improve reliability, reduce congestion, or improve efficiency. Western Grid is developing and operating energy storage devices at specific sites along the CAISO grid where it will provide services using an advanced transmission technology. The energy storage devices being used in the Projects are an innovative use of technology and represent a relatively new form of potential transmission reliability solution.

98. As noted above, however, the Projects are not entitled to the rebuttable presumption that they are needed to maintain reliability or reduce congestion, and Western Grid has not provided the Commission with the necessary support to determine whether the Projects meet the threshold requirements of FPA section 219. As such, Western Grid will need to make a showing that the Projects will improve reliability, reduce congestion or improve efficiency in the CAISO transmission planning process. Accordingly, we grant the requested 45 basis-point ROE adder based on the Projects’ use of “advanced technology,” conditioned on the Projects being approved in the CAISO’s transmission planning process, as discussed above, and subject to Western Grid’s overall ROE being within the zone of reasonable returns, which will be determined when it makes its future FPA section 205 filing.

5. Deferred Cost Recovery of Pre-Commercial Expenses

a. Western Grid’s Proposal

99. Western Grid states that Order No. 679 permits transmission project applicants to seek deferred cost recovery through the creation of a regulatory asset, noting that the Commission has found that this incentive provides projects with upfront regulatory certainty and facilitates financing on favorable terms. Western Grid adds that, in cases predating FPA section 219, the Commission recognized the unique contribution, desirability and enhanced risks of independent entities developing new transmission

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100 Western Grid Petition at 32 (citing Green Power Express, 129 FERC ¶ 61,165 at P 59).
facilities. Western Grid argues that, given the novel financial, regulatory and other risks associated with the Projects, this incentive is necessary to compensate for the costs and risks associated with development of the Projects and to meet the minimum expectations of Western Grid’s investors and lenders.

Specifically, Western Grid seeks deferred cost recovery through a regulatory asset that will include all prudently-incurred start-up and development costs incurred to date and all pre-commercial costs going-forward to the extent any such expenses are not included in rate base as CWIP. Western Grid proposes to amortize these costs over a five-year term. According to Western Grid, the regulatory asset will include costs associated with initial studies prepared for or required by the CAISO, efforts to establish the rate incentives sought in the Petition, technology development authorities, obtaining necessary approvals from the CAISO and other regulatory authorities, and education and outreach to interested parties on the Projects’ merits. Western Grid states that these costs may include (but are not limited to) attorney and consultant fees, entity formation costs, administrative expenditures, taxes (other than income taxes), travel costs, other expenses related to corporate structure, and costs relating to technical studies (including those required by regulatory entities and regional transmission planning processes). Finally, Western Grid states that the Commission has approved deferred recovery of similar costs, with the caveat that the prudence of those costs must be demonstrated when the applicant seeks to implement recovery through a FPA section 205 filing.102

b. Comments

Six Cities argues that the Commission should deny Western Grid’s request for deferred cost recovery through a regulatory asset because the approval of this incentive would compel CAISO transmission customers to pay for Western Grid’s efforts to promote the Projects in the transmission planning process without any prior demonstration that the Projects offer concrete benefits for the CAISO grid.

c. Commission Determination

We grant Western Grid’s request for authorization to establish the regulatory asset, conditioned and effective upon the Projects being approved in the CAISO’s transmission planning process, as discussed above. Granting this incentive will allow Western Grid to defer recovery of prudently-incurred pre-construction, start-up and development costs and recover them later. We find the incentive is tailored to Western

101 Id. at 24 (citing Western Area Power Administration, 99 FERC ¶ 61,306, at 62,280 (2002); Trans-Bay Cable, LLC, 112 FERC ¶ 61,095, at P 25 (2005)).

102 Id. at 25 (citing Tallgrass, 125 FERC ¶ 61,248 at P 59-61).
Grid’s risks and challenges because this incentive will provide it with added up-front regulatory certainty and can reduce interest expense, improve coverage ratios, and facilitate the financing of the Projects on reasonable terms. Establishing this regulatory asset to recover pre-commercial costs will help compensate it for the risks associated with the long-lead time necessary for constructing the Projects, including its efforts to pursue regulatory approvals and financial backing. Granting this incentive encourages development of more transmission infrastructure, thereby fulfilling the goals of FPA section 219.\(^{103}\) At the same time, we recognize that Western Grid should not begin recovering these costs until such time that it demonstrates that the Projects will ensure reliability or reduce the price of delivered power by reducing congestion.

103. We will not determine the justness and reasonableness of Western Grid’s recovery of pre-commercial expenses, if any, until it seeks such recovery in a FPA section 205 filing. The Commission has previously held that entities receiving this incentive must demonstrate that the costs were prudently incurred and just and reasonable in a subsequent FPA section 205 filing.\(^{104}\)

6. **Hypothetical Capital Structure**

a. **Western Grid’s Proposal**

104. Western Grid requests authorization to use a hypothetical capital structure of 50 percent debt and 50 percent equity during the development and construction of the Projects. No comments were filed on this issue.

b. **Commission Determination**

105. Contingent on the Projects receiving approval in the CAISO’s transmission planning process, as discussed above, we will allow Western Grid to use a hypothetical capital structure of 50 percent debt and 50 percent equity until such time that the Projects is placed in service. Western Grid has demonstrated a nexus between the requested incentive and the risks and challenges faced by the Projects. Specifically, Western Grid is a stand-alone start-up company that lacks an actual capital structure and will receive no revenues beyond those received from the operation of the Projects. Western Grid will need to raise significant levels of new debt and equity capital to develop and construct the Projects and approval of the hypothetical capital structure will give Western Grid flexibility in financing the Projects to allow for prevailing market and regulatory

\(^{103}\) See, e.g., *Green Power Express*, 127 FERC ¶ 61,031 at P 61.

\(^{104}\) See, e.g., *id.*
conditions, which should lower the overall cost of capital.\textsuperscript{105} Upon completion of the Projects, the Commission directs Western Grid to adopt a capital structure based upon its actual financing, consistent with past Commission directives, and reflect such in its revenue requirement.\textsuperscript{106}

7. \textbf{Nexus with Total Package of Incentives}

106. As we have stated above, the total package of incentives requested must be tailored to address the demonstrable risks or challenges faced by the applicant. This test is fact-specific and requires the Commission to review each application on a case-by-case basis. The Commission has in prior cases approved multiple rate incentives for particular projects.\textsuperscript{107}

107. For the reasons discussed above, and consistent with precedent,\textsuperscript{108} we find that the total package of incentives, as conditioned, is tailored to address the demonstrable risks and challenges faced by Western Grid in developing the Projects. Western Grid has explained why it is seeking each incentive and how each is relevant to the proposed Project. Thus, we find that Western Grid has shown a nexus for the total package of incentives.

\textsuperscript{105} See, e.g., \textit{PATH}, 122 FERC ¶ 61,188 at P 55. \textit{See also} Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 93 (finding that hypothetical capital structures “can be an appropriate ratemaking tool for fostering new transmission in certain relatively narrow circumstances”).

\textsuperscript{106} See, e.g., \textit{PATH}, 122 FERC ¶ 61,188 at P 56; \textit{Trans-Allegheny Interstate Line Co.}, 119 FERC ¶ 61,219 at P 76 (2007).

\textsuperscript{107} See, e.g., \textit{Green Energy Express}, 129 FERC ¶ 61,165 at P 66 (finding that the applicant demonstrated a sufficient nexus between the risks of the project and the requested incentives, which included deferred recovery of pre-commercial expenses; 100 percent CWIP and abandonment recovery; ROE incentives; and a hypothetical capital structure until the project is placed in service); \textit{Green Power Express}, 127 FERC ¶ 61,031 at P 89 (finding that 100 percent CWIP, deferred recovery of pre-construction costs, abandonment recovery, and ROE incentives were tailored to the unique challenges faced by the project); \textit{ITC}, 126 FERC ¶ 61,223 at P 61 (finding that applicant demonstrated a sufficient nexus between the risks of the project and the requested incentives, which included abandoned plant recovery, 100 percent of CWIP, deferred recovery of pre-construction costs, and ROE incentives).

\textsuperscript{108} See, e.g., \textit{Green Energy Express}, 129 FERC ¶ 61,165 at P 66.
Further, we find that Western Grid has appropriately tailored the requested incentives to the unique challenges facing the Projects. As we discuss above, the CWIP and regulatory asset incentives are designed to provide Western Grid with up-front regulatory certainty, rate stability, and improved cash flow, thereby easing the pressures on its finances associated with development and construction of the Projects. The incentive ROE adders for RTO membership, Transco status, and advanced technology are designed to facilitate Western Grid’s ability to raise capital as the Projects move forward.

F. Request for Commission Advisory Opinion

1. Western Grid’s Proposal

Western Grid requests insight on whether the Commission perceives any barriers that could prevent the CAISO from considering the Projects on an equal footing with other utility and non-utility proposed transmission alternatives to solve reliability problems.

2. Comments

TANC argues that Western Grid has not identified a concern that requires clarification or provided sufficient specificity as to the insight it seeks. TANC claims that Western Grid’s solicitation from the Commission of an opinion on how the CAISO should evaluate and respond to Western Grid’s proposal is vague and premature and should therefore be denied.

3. Commission Determination

As a general proposition, we do not render advisory opinions. The Commission agrees with TANC that Western Grid has not identified a specific issue for which it seeks guidance here. Therefore, we are not able to respond to Western Grid and deny its request.

The Commission orders:

(A) The Petition is conditionally granted, with the exception of the abandoned plant incentive, subject to, among other things, the Projects’ approval in the CAISO’s transmission planning process, as discussed in the body of this order.

(B) Western Grid is directed to submit a filing within 30 days of the CAISO’s approval of the Projects in its transmission planning process, as discussed in the body of this order.

By the Commission. Commissioner Norris voting present.

(SEAL)

Nathaniel J. Davis, Sr.,
Deputy Secretary.