

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, Joseph T. Kelliher,
and Suedeem G. Kelly.

Consumers Energy Company	Project Nos.	2436-200, 2447-191, 2448-196, 2449-168, 2450-167, 2451-162, 2452-174, 2453-197, 2468-172, 2580-227, and 2599-189
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ORDER DENYING REHEARING

(Issued March 23, 2005)

1. Consumers Energy Company (Consumers) seeks rehearing of the Commission's November 23, 2004 order that, as pertinent here, denied Consumers' request for a determination that it had no further fish protection obligations under Article 408 of the licenses of several of its projects.¹ For the reasons discussed below, we deny rehearing. Our action serves the public interest by clarifying the extent of Consumers' fish protection obligations.

Background

2. In 1994, pursuant to a settlement agreement among Consumers, the Michigan Department of Natural Resources (Michigan DNR), and others, the Commission issued Consumers 11 new licenses for the continued operation of hydroelectric projects located

¹ *Consumers Energy Company*, 109 FERC ¶ 61,211 (2004).

in Michigan on the AuSable, Manistee, and Muskegon Rivers.² Article 408 of each license requires Consumers to study, design, construct, operate, and maintain fish protection measures or devices at each project, as well as to provide funding for their study, design, and construction. Article 409 of each license requires Consumers to make specified annual monetary contributions to a State of Michigan Habitat Improvement Account (fisheries account), for fish losses due to turbine entrainment mortality at each project. Article 409 provides procedures for reducing such annual contributions commensurate with the reduction of turbine entrainment mortality achieved by Consumers' implementation of the Article 408 fish protection requirements.

3. In September 1996, Consumers filed an overall Fish Protection Installation Plan and Schedule (Protection Plan) for fish protection devices in accordance with Article 408 of the licenses. In preparing the Protection Plan, Consumers determined that the value of lost fishery resources at five of the 11 projects appeared sufficient to support installation and operation of cost-effective fish protection devices. Therefore, Consumers proposed a three-phase approach for installing fish protection devices or measures at those five projects, in satisfaction of the requirement for all 11 licenses.³ The first phase was to consist of design, construction, installation, and biological effectiveness testing of stoplog screens at the Foote Project No. 2436. Further progress under the Plan was to depend on the results at Foote. The U.S. Fish and Wildlife Service, U.S. Forest Service, and Michigan DNR (resource agencies), all parties to the settlement agreement, supported the proposal, after Consumers provided certain clarifications, and, in November 1996, Commission staff approved the Protection Plan for all 11 projects.⁴

² Projects located on the AuSable River are Foote (No. 2436), Alcona (No. 2447), Mio (No. 2448), Loud (No. 2449), Cooke (No. 2450), and Five Channels (No. 2453). Projects located on the Manistee River are Tippy (No. 2580) and Hodenpyl (No. 2599). Projects located on the Muskegon River are Rogers (No. 2451), Hardy (No. 2452), and Croton (No. 2468). The orders issuing the new licenses are found at 68 FERC ¶¶ 61,071 through 61,076 and ¶¶ 61,079 through 61,083 (1994). An order on the offer of settlement is found at 68 FERC ¶ 61,077 (1994).

³ At the remaining six projects, Consumers would continue to make annual contributions to the fisheries account rather than provide fish protection devices or measures. Protection Plan, section 8.0 at 145.

⁴ *Consumers Power Company*, 77 FERC ¶ 62,115 (1996).

4. Consumers installed fish screens at the Foote Project in accordance with the Protection Plan. In 1999, to determine the screens' effectiveness in reducing turbine mortality, Consumers conducted a study in which it compared pre-license fish entrainment and mortality with entrainment and mortality following the installation of the screens.⁵ Estimates of pre-license entrainment and mortality were taken from a study that Consumers had conducted at the Foote Project as part of a group of studies it had conducted at all 11 projects in 1990 and 1991. The 1999 study showed that the number of fish entrained at screened turbines was not much greater than the number entrained at unscreened turbines. In reliance on these study results, Commission staff, in an April 2001 Order, determined that fish screens at the Foote Project would not be cost effective and should not be required.⁶

5. In its April 2001 Order, staff also accepted the 1999 study's finding that, with or without fish screens, entrainment mortality at the Foote Project is much lower than Consumers' 1990/91 study for the project had indicated. Accordingly, the staff reduced the Foote Project's annual Article 409 contribution to the fisheries account from \$210,180 to \$3,100 (in year 2000 dollars).

6. The fisheries account contributions specified in Article 409 of the other 10 licenses were also based on the 1990/91 entrainment and mortality studies. In April 2002, Consumers filed applications for amendment of the other 10 licenses to reduce the Article 409 contributions to levels specified in the applications. The applications were supported by a desktop study conducted by Consumers that used data from fish entrainment studies at 17 hydroelectric projects in the Midwest to calculate entrainment rates at Consumers' other 10 projects. Consumers asserted that the desktop study showed that the 1990/91 studies had significantly overestimated entrainment rates at the other 10 projects, just as they had at the Foote Project.

⁵ Commission staff approved Consumers' study plan for the effectiveness of the screens at the Foote Project in 1999. *Consumers Energy Company*, 86 FERC ¶ 62,038 (1999).

⁶ *Consumers Energy Company*, 95 FERC ¶ 62,048, *order on reh'g* 95 FERC ¶ 61,394 (2001). Out of approximately 10,000 fish entrained, annual mortality at unscreened units was 1,860 fish, as opposed to 1,714 fish at screened units, a difference of only 146 fish (having an annual loss value of only \$1,030). *See* 95 FERC ¶ 62,048 at 64,062. The order on rehearing mistakenly referred to the difference as 156 fish. *See* 95 FERC ¶ 61,394 at 62,469.

7. In an order issued October 27, 2003, we denied the license amendment applications on the ground that, for various reasons, the data collected and analyzed in the desktop study could not be assumed to represent conditions at the 10 remaining Consumers projects and therefore did not provide a reliable basis for reducing the fish contribution amounts in Article 409 of the 10 licenses.⁷ In our November 2004 Order, we denied Consumers' request for rehearing of the October 2003 amendment denial order.

8. In its amendment applications, Consumers also requested a determination that it had completed all of its obligations with respect to the Article 408 Protection Plan for all 11 projects. We did not address this request in our October 2003 order but did so in our November 2004 Order. We concluded that, under the Protection Plan, no further fish protection measures were necessary at the Foote Project, because any further measures contemplated by the Plan for that project, specifically screen redesign and evaluation of a barrier net, were to take cost effectiveness into account, and the revised estimate of the annual value of lost fish at the project indicated that further measures would not be cost effective. On the other hand, based on the provisions of the Plan and the lack of reliable revised estimates for fish entrainment for any project besides Foote, we were unable to conclude that Consumers had no further fish obligations at the other four projects specified in the Plan. Because the Plan's original schedule could no longer be met, we directed Consumers to consult with the resource agencies and file, for our approval, a modified plan that would identify remaining activities to be undertaken and a schedule for accomplishing them.

9. Consumers' present rehearing request is confined to our disposition of the Article 408 fish protection issue, since our November 2004 Order made a final determination on rehearing of the Article 409 fisheries account issue. Consumers argues that we erred in concluding that any work remains to be done under the second and third phases of the Protection Plan. It contends that the Plan clearly indicates that the activities under each succeeding phase are not to proceed unless there has been a successful stoplog screen installation in the prior phase. Because stoplog screens did not prove effective at Foote, the only remaining step would be to reevaluate installation of a seasonal barrier net at Foote and Five Channels under the first phase of the Plan. Consumers argues that we erred in not examining its evidence regarding the extent of fish loss at Five Channels and concluding from that evidence that further activity at that project would be inappropriate.

⁷ *Consumers Power Company*, 105 FERC ¶ 61,126 (2003).

10. The resource agencies filed joint comments on Consumers' request for rehearing. Under the Commission's procedural rules, the Commission does not permit answers to requests for rehearing.⁸ However, we will consider the resource agencies' comments in the interest of aiding our understanding of the terms and expectations of the Protection Plan.

Discussion

11. The Protection Plan recommends a phased implementation process, "based primarily on the level of cost effectiveness for each of the five plants."⁹ As noted, the first phase was initiated by the installation of stoplog screens at Foote. Section 8.1 of the Plan provides:¹⁰

If performance of the screens is considered acceptable, then the process should continue to the second phase. If screen performance is not acceptable then an evaluation should be conducted that determines if the screen concept at Foote is salvagable with a re-design. If re-design is not possible, then re-evaluation of the seasonal barrier net at Foote and Five Channels will be necessary.

12. Consumers argues, in effect, that because installation of the stoplog screens at Foote did not produce a significant reduction in entrainment mortality in comparison to the pre-installation situation, performance of the screens was not "acceptable," and therefore the process would not continue to the second phase. We are not convinced that this is the correct interpretation of the Plan's provisions.

13. Although the fish protection options in phase one are triggered by whether the performance of the installed screens is acceptable or unacceptable, section 8 of the Protection Plan does not indicate who is to determine whether the performance is acceptable or on what basis such a determination would be made. However, various other provisions of the Plan refer to testing the stoplogs screens for their "biological effectiveness." In their comments on the request for rehearing, the resource agencies argue that Consumers has confused biological effectiveness with cost effectiveness. The resource agencies state that the determination of the 2001 orders that screens should not

⁸ See 18 C.F.R. § 385.713(d) (2004).

⁹ Protection Plan, section 8.0 at 145.

¹⁰ *Id.* at 146.

be required at Foote was based entirely on the finding that the monetary cost of installing and maintaining screens at Foote on a permanent basis would be unreasonable given the low replacement cost of the lost fish resource. The resource agencies assert that the screens were in fact biologically effective, in that fewer fish were entrained through units operating with screens than units without screens.

14. Various provisions of the Protection Plan touch on the concept of biological effectiveness. Section 7.1 states that biological effectiveness “is measured as a percent reduction between the value of lost fish resources without protection and with a protection device in place”¹¹ Section 7.2 states that “[t]he primary objective of biological effectiveness studies for seasonal barrier nets and $\frac{3}{4}$ in stoplog screens is to determine the relative decrease in entrainment of fish resulting from installation of either device.”¹² And section 7.2.2 states that “[t]he primary objective of biological effectiveness studies for stoplog screens will be to determine the relative difference in the size and species of fish entrained between a protected and unprotected unit.”¹³ Given that, at Foote, annual mortality at unscreened units was 1,860 fish, as opposed to 1,714 fish at screened units, a difference of 146 fish, or a reduction in entrainment mortality of about 7.85 percent with screens, it might be questioned whether the stoplog screens at Foote were shown to be biologically effective as that term was intended to be understood in the Protection Plan. But the very fact that Consumers and the resource agencies differ on this point suggests that there has been no definitive determination that the screen performance was “unacceptable,” if acceptability is meant to depend on biological effectiveness.

15. Putting aside the lack of a definitive finding of unacceptability, we question whether Consumers is correctly interpreting the criteria that determine whether it is to proceed with the second phase of the Plan. Although the Plan provides that the process should continue to the second phase if the screen performance is found acceptable, this does not necessarily imply that the second phase is to be eliminated if performance of the original screens is not found acceptable. If performance is not acceptable, Consumers is to evaluate screen redesign at Foote and, if that alternative is found not to be possible, Consumers is to reevaluate the use of a seasonal barrier net. Presumably, if screen redesign were pursued and the redesigned screens were found biologically effective, the process would continue to the second phase, contrary to the implication of Consumers’

¹¹ *Id.* at 110.

¹² *Id.* at 111.

¹³ *Id.* at 113.

position. As it developed, the revised estimate of fish mortality at Foote was so low that screens would not have been cost effective at the project. Under those circumstances, it would not have been useful to explore whether screen redesign could increase the difference between fish mortality with and without screens at Foote. The issue became not whether redesign of the screens was possible, but whether screens would be cost effective in light of the revised mortality estimates.

16. The Protection Plan did not seem to contemplate this development. Section 8.1 of the Plan provides, in part:¹⁴

The second phase of implementation of protection technologies should be to utilize the experience gained at Foote to install and evaluate stoplog screens at Five Channels. If screen performance is acceptable then the process should move to the third phase. Non-acceptable screen performance would result in an evaluation for re-design and re-installation of stoplog screens or, if this is not possible, a re-evaluation of the seasonal barrier net

It does not seem reasonable that Consumers and the resource agencies intended to forego testing of fish protection measures at Five Channels because screens proved not to be cost effective at Foote. Rather, the Plan assumes that experience at Foote would show whether or not screens could be designed that could make a difference in entrainment mortality at the projects included in the Plan. Developments at Foote left this question unresolved. Since conditions might be different at the other projects, particularly in respect to the size and species of fish, it is possible that stoplog screens could be designed to reduce entrainment mortality at those projects. Moreover, since we have not accepted revised, reduced entrainment mortality estimates for the other projects, we cannot assume that installation and maintenance of screens at those projects would not be cost effective.

17. Consumers argues that we should have examined the data in its desktop study regarding the extent of fish loss at the Five Channels Project and concluded from that data that it would not be justifiable to require evaluation of a seasonal barrier net, the only activity that Consumers considers to remain required by the Protection Plan.¹⁵

¹⁴ *Id.* at 146.

¹⁵ Even accepting Consumers' interpretation of the Plan's provisions, exhaustion of the phase one stoplog screen measures would at least require reevaluation of the seasonal barrier net at Five Channels.

Consumers argues that our rejection of the desktop study for purposes of Article 409 did not justify our failure to consider the study results for purposes of the Article 408 issue.

18. As explained above, we do not agree that the Plan unequivocally provides that evaluation of a seasonal barrier net at Five Channels would be the only possible remaining activity in this situation. Further, we stated in our November 2004 order that we would not engage in a piecemeal evaluation of the flawed desktop study to determine the extent to which any aspects of Consumers' data might be applicable to particular projects. Although Consumers emphasizes the distinction between using the desktop data to support its Article 409 and its Article 408 arguments, it is nevertheless in effect requesting us to reconsider our conclusions that the desktop study results were unreliable and that we would not attempt to salvage them on a project-by-project basis. We will not revisit that issue. Moreover, the validity of the desktop study for Article 409 purposes cannot be separated from its validity for Article 408 purposes. The purpose of the rejected desktop study was to produce revised estimates of fish losses for Article 409 payment purposes, while implementation of the Article 408 fish protection measures is grounded in their cost-effectiveness, which is in turn partly dependent on the level of fish losses at the involved projects. Under those circumstances, it would hardly be consistent for us to find that the desktop study produced unreliable estimates of fish losses for one purpose but not for another.

19. For the above reasons, Consumers has not convinced us, on rehearing, that it has completed all of the fish protection obligations established in the Article 408 Protection Plan. Accordingly, we affirm our November 2004 order's requirement that Consumers consult with the resource agencies and file, for our approval, a modified plan that would identify remaining activities to be undertaken and a schedule for accomplishing them.

The Commission orders:

The request filed December 23, 2004, by Consumers Energy Company for rehearing of the Commission's order in this proceeding issued November 23, 2004, is denied.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.