

156 FERC ¶ 61,010
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Duke Energy Carolinas, LLC

Project No. 2232-618

ORDER ON REHEARING AND CLARIFICATION

(Issued July 5, 2016)

1. On November 25, 2015, the Director of the Office of Energy Projects (Director) issued a new license (Relicense Order) to Duke Energy Carolinas, LLC (Duke Energy) to continue operation and maintenance of the 819.102-megawatt (MW) Catawba-Wateree Hydroelectric Project No. 2232, located on the Catawba and Wateree Rivers in Burke, McDowell, Caldwell, Catawba, Alexander, Iredell, Mecklenburg, Lincoln, and Gaston Counties in North Carolina, and York, Lancaster, Chester, Fairfield, and Kershaw Counties in South Carolina.¹
2. On December 21, 2015, Duke Energy filed a timely request for rehearing of the Relicense Order. We grant in part and deny in part the request for rehearing, and modify and clarify several license provisions, as discussed below.

I. Background

3. The Catawba-Wateree Project was originally licensed by the Federal Power Commission on September 17, 1958.² The license expired on August 31, 2008, and the project operated under an annual license until the Director issued the Relicense Order.
4. The project, which includes 11 developments, is located on an approximately 300-mile stretch of the Catawba River, a major tributary of the Wateree River. It consists of the following 11 developments, from upstream to downstream: (1) Bridgewater;

¹ *Duke Energy Carolinas, LLC*, 153 FERC ¶ 62,134 (2015).

² *Duke Power Company*, 20 F.P.C. 360 (1958).

(2) Rhodhiss; (3) Oxford; (4) Lookout Shoals; (5) Cowans Ford; (6) Mountain Island; (7) Wylie; (8) Fishing Creek; (9) Great Falls-Dearborn; (10) Rocky Creek-Cedar Creek; and (11) Wateree. Each development includes one or more dams, powerhouses, impoundments, and recreation amenities.

5. On August 29, 2006, Duke Energy filed an application for a new license to continue operation and maintenance of the project. The company included with its application a Comprehensive Relicensing Agreement (Relicensing Agreement).³ The Relicensing Agreement, which was signed by Duke Energy and 69 other entities, resolved all of the entities' outstanding issues (except fish passage) associated with the relicensing of the project and included a number of proposed license articles. Duke Energy adopted the Relicensing Agreement's terms as its relicensing proposal.

6. Commission staff issued a draft Environmental Impact Statement (EIS) in March 2009 and a final EIS in July 2009 analyzing the effects of the proposed project and alternatives to it, and recommending issuance of a new license essentially as proposed by Duke Energy, with some additional staff-recommended measures.

7. The Relicense Order required a number of measures to protect and enhance reservoir resources and recreation, as well as the conditions included in the water quality certifications issued by the North Carolina Department of Environment and Natural Resources Division of Water Quality, attached to the license order as Appendix A, and by the South Carolina Department of Health and Environmental Control, attached to the license order as Appendix B. The certifications incorporate by reference many of the sections and proposed license articles of the Relicensing Agreement. The term of the new license was set at 40 years.

8. On December 21, 2015, Duke Energy filed a request for rehearing of the Relicense Order, arguing that the license should be for a 50-year term and requesting that the Commission modify, correct, and clarify other license provisions. Several entities filed comments supporting Duke Energy's request for a 50-year license term.⁴

³ On December 29, 2006 Duke Energy filed a revised Relicensing Agreement that (1) removed from the list of parties to the agreement the entities that did not sign the agreement, (2) deleted actions that were contingent upon those entities becoming a signatory, (3) reflected actions already taken, and (4) corrected typographical and grammatical errors.

⁴ Ten of the 70 signatories to the Relicensing Agreement, as well as Mr. Andrew Lazanby and members of the North Carolina and South Carolina Congressional delegations, filed comments in support of a 50-year license term.

II. Discussion

A. License Term

9. Section 15(e) of the Federal Power Act (FPA) provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years.⁵ It is the Commission's policy to relate the length of the new license term to the amount of redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures that are authorized or required under the license. Thus, we grant 30-year terms for projects with little or no redevelopment, new construction, new capacity, or new environmental and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.⁶

10. The Relicense Order concluded that the new license authorizes a moderate amount of new construction (*e.g.*, fish passage facilities and a bladder dam on the Wateree spillway) and new environmental mitigation and enhancement measures (*e.g.*, higher minimum flow releases from the Bridgewater, Oxford, Lookout Shoals, Wylie, Great Falls-Dearborn, and Wateree Developments; recreational flow releases from the Bridgewater, Oxford, Wylie, Great Falls-Dearborn, and Wateree Developments; diadromous fish monitoring associated with fish passage program, sturgeon monitoring, and recreation development).⁷ Based on those measures, the order concluded that a 40-year license term was appropriate.⁸

11. On rehearing, Duke Energy requests that the Commission extend the 40-year license term to 50 years, arguing that Commission staff erred in issuing a 40-year license term because the costs required to implement the license evince "extensive" new construction and environmental mitigation and enhancement measures.⁹ The company also argues that the Commission has justified 50-year terms for licenses with less costly measures and that the measures required under its new license are similar to measures required in other licenses that received 50-year terms. The company also contends that a 50-year term is justified because the signatories to the Relicensing Agreement support such a license term.

⁵ 16 U.S.C. §808(e) (2012).

⁶ *See, e.g., Southern California Edison Co.*, 77 FERC ¶ 61,313, at 62,435 (1996).

⁷ Relicense Order, 153 FERC ¶ 62,134 at P 277.

⁸ *Id.*

⁹ Rehearing Request at 12.

12. Duke Energy states that it will spend more than \$154 million over the license term to implement the environmental-related measures required by the new license, and that the annual (levelized) cost¹⁰ to implement all the new environmental mitigation and enhancement measures exceeds \$18 million a year.¹¹ The company argues that the annual levelized cost is closer to \$30 million a year when including the loss in generation value and expenses incurred prior to license issuance. Specifically, it asserts that the total costs to implement the new license should include the loss in generation value resulting from the new minimum flow requirements, which the company estimates to be \$7.638 million per year.¹² Duke Energy states that including this cost would bring the annual cost to more than \$25.638 million. The company also asserts that the \$5.2 million per year it spent to install aeration and minimum flow facilities under its prior license while its relicensing application was pending should be considered as costs incurred under the new license. Thus, according to the company, the Commission should consider \$30.8 million in annual costs when determining the appropriate license term.¹³

13. We deny rehearing and affirm the license order's determination that a 40-year license term for the Catawba-Wateree Project is appropriate. The most costly new measures required by the new license include anadromous fish and eel passage facilities, the construction of a bladder dam on the Wateree spillway, new minimum flow and recreational flow release requirements, water quantity and quality monitoring, and various recreation improvements. The nature and extent of these measures are not unusual for a large-sized project like the 819.102-MW Catawba-Wateree Project, and are similar to those required in other recent licenses that received 40-year terms.¹⁴ Under the

¹⁰ The annual levelized cost of the environmental measures includes the capital costs for the measures annualized over a 30-year period together with the annual costs to implement the measures, including operations and maintenance.

¹¹ Rehearing Request at 8.

¹² Rehearing Request at 10 n.4.

¹³ Rehearing Request at 11 n.5.

¹⁴ See, e.g., *Duke Energy Progress, Inc.* 151 FERC ¶ 62,004, at P 232 (*Duke Energy Progress*), affirmed on reh'g, 153 FERC ¶ 61,056 (2015) (new environmental and related construction measures include fish passage facilities, higher aquatic and recreation minimum flow releases, and sturgeon monitoring); and *Public Utility District No. 1 of Douglas County, Wash.*, 141 FERC ¶ 62,104, at P 40 (2012), affirmed on reh'g, 143 FERC ¶ 61,130 (2013) (*PUD No. 1 of Douglas County*) (new environmental measures include fish passage facilities, and implementation of numerous aquatic, wildlife, recreation, and cultural resources management and protection plans).

new license, Duke Energy will not be constructing extensive new facilities, adding substantial capacity, or complying with extensive new environmental measures, so as to justify a 50-year license term.

14. Moreover, Duke Energy predominantly relies on cost as the basis for supporting a longer license term. However, our selection of license term is largely based on a qualitative, rather than a quantitative analysis. While estimated costs can provide some indication of the extent of required measures, costs alone are never entirely dispositive, especially where, as here, Duke Energy's cost data are not reliable. When staff estimates projected costs in the course of performing an environmental analysis, it is not attempting to develop a precise measure of future expenses. Rather, the economics of a project are analyzed to provide a general estimate of the potential power benefits and cost of a project, in order to assist in the comparison of alternatives (typically, a no-action alternative, the licensee's proposal, and an alternative including mandatory conditions and staff-recommended measures).¹⁵ A project's annual levelized costs are sufficient for our *Mead* analysis, which provides a snapshot of a project's economic feasibility.¹⁶ However, we do not subject the estimates to the type of rigorous analysis that would be necessary were we to treat them as matters of absolute fact. We may use costs as a check on the propriety of our qualitative conclusion that measures required under a new license are minimal, moderate, or extensive, but we do not use costs as the conclusive and quantitative test for setting a license term.¹⁷

¹⁵ See *Mead Corp.*, 72 FERC ¶ 61,027 (1995).

¹⁶ *Duke Energy Progress*, 153 FERC ¶ 61,056 at P 102.

¹⁷ Duke Energy argues that in *New York Power Authority*, 118 FERC ¶ 61,206 (Niagara Relicense), *affirmed on reh'g*, 120 FERC ¶ 61,266 (2007) (Niagara Rehearing), *petition dismissed*, *E. Niagara Pub. Power Alliance v. FERC*, 558 F.3d 564 (D.C. Cir. 2009), the Commission relied on costs in setting the license term, and compares the costs in that case to those in other cases, including the current matter. Request for Rehearing at 12-16. Although the Commission in the Niagara Rehearing order did use cost as a significant part of its analysis, the Commission does not generally treat cost as dispositive. In the initial Niagara Relicense order, the Commission referenced only the qualitative extent of the required measures, with no mention of costs. 118 FERC ¶ 61,206 at P 113. On rehearing, in response to allegations that the license term was too long, the Commission outlined the required measures and concluded that "[w]e find that these measures, which have a total costs of \$58,217,645, qualify as extensive." 120 FERC ¶ 61,266 at P 19. The Commission went on to say that "where the mitigation costs have not been considered moderate or extensive on their own, we have examined them in the context of the whole project. However, where the costs themselves are high,

(continued ...)

15. Further, a strictly quantitative analysis is problematic because cost estimates can fluctuate widely over time and can lack sufficient documentation. Here, the cost estimates relied on by Duke Energy are neither consistent nor supported. In the final EIS (Table 131), Commission staff estimated the annual levelized cost to implement the new environmental mitigation and enhancement measures (except for the cost to implement the terms and conditions of National Marine Fisheries Service’s Biological Opinion, required by Ordering Paragraph (G) of the Relicense Order).¹⁸ In response to Commission staff’s request to simply update the cost estimates in Table 131 from 2008 dollars to 2015 dollars to account for any inflation, on June 15, 2015, Duke Energy instead filed new estimates – unsupported by any explanation. The company used its new estimates to arrive at the \$18 million per year figure that it uses in its rehearing request.¹⁹ In other words, Duke Energy did not merely update the estimates from 2008 to 2015 dollars, but instead gave wholly new estimates that were significantly different from those in the final EIS. For example, Duke Energy’s annual levelized cost for recreation enhancements rose from \$2,792,113 (2008\$) in the EIS²⁰ to \$4,478,559 (2015\$).²¹ Its estimate for headworks structural modifications at Great Falls/Dearborn Diversion Dam went from \$331,780 (2008\$) in the EIS²² to \$1,952,031 (2015\$).²³ In almost all the cases where differences in estimates between the EIS and Duke Energy’s revised estimates

we have issued longer term licenses.” *Id.* P 20. In a footnote, the Commission then compared the “scope” (not the cost) of measures in other cases. *Id.* n.27. In any event, as discussed below, the costs provided by Duke Energy in this case suffer from various deficiencies, including a lack of support.

¹⁸ Final EIS at 459-62 (Table 131). Table 131 in the final EIS provided a summary of each of the environmental enhancement measures to compare the benefits of each measure to its cost. Staff could not include in the final EIS the costs associated with measures recommended in the Biological Opinion because the Biological Opinion was not issued until after the Final EIS was published. However, staff did include those costs in the analysis in the Relicense Order, based on information provided by Duke. *See* Relicense Order, 153 FERC ¶ 62,134 at P 268 n.205.

¹⁹ These revised estimates are included in Attachment A to Duke Energy’s Rehearing Request.

²⁰ Final EIS at 460 (Table 131).

²¹ Rehearing Request Attachment A.

²² Final EIS at 459 (Table 131).

²³ Rehearing Request Attachment A.

were greater than would be expected from merely updating figures from 2008 to 2015 dollars, Duke Energy provided no explanation or support for the cost increases. In addition, it appears that the company now is considering gate construction, a higher-cost alternative to the bladder dam required at the Wateree Development, and included the higher cost of gate construction (\$40 million instead of \$10 million) in its cost estimates.²⁴ However, the bladder dam is the measure required by the Relicense Order, and the company has not filed an application to amend the license to authorize the higher cost alternative. Given that these numbers are unexplained (and, in the case of the gate construction, inconsistent with the terms of the license), we cannot use them as a basis for changing the license term.

16. Duke Energy also argues that its \$18 million annual cost estimate does not include generation that will be lost due to the requirements of the new license, which the company asserts has an annual value of \$7.638 million.²⁵ Duke Energy further alleges that Commission staff underestimated the value of this lost generation in its evaluation of the project's economics.

17. More specifically, Duke Energy asserts, for the first time, that the required new minimum flow releases from the Bridgewater Development and the required new minimum and recreational flow releases from the Dearborn Development will reduce the project's annual generation by 40,040 MWh²⁶ (Commission staff had estimated a loss of 31,089 MWh). Duke Energy also contends that the annual generation under the no-action alternative should be 1,492,255 MWh, and the value of that generation should be \$96,517,604, not 1,483,304 MWh and \$89,383,899, respectively, as estimated by staff. The company further argues that, had Commission staff used Duke Energy's generation and value estimates for the no-action alternative, staff would have found that the lost generation cost of the minimum flows under the as-licensed alternative would have been \$7.638 million per year not \$508,341 per year, using the aforementioned staff estimates. Although staff's no-action alternative estimates of average annual generation and its value were included in the final EIS, we believe that Duke Energy's more recent estimates of lost generation of 40,040 MWh, as illustrated in Attachment B to its Rehearing Request, and its associated value of \$96,517,604 are reasonable. However, the higher value of lost generation does not alter our conclusion that the measures required

²⁴ Rehearing Request at 9 n.3.

²⁵ Generation at the project will be reduced due to the new minimum and recreational flow releases required by the license, and the value of lost generation will be further affected by a shift in some generation from on-peak to off-peak periods.

²⁶ Rehearing Request at 10 n.4 and Attachment B.

by the new license are moderate, given that the lost generation value represents only 7.9 percent of the value of total project generation.²⁷

18. In addition, we disagree with Duke Energy's contention that expenditures it incurred prior to license issuance to implement certain measures proposed in its August 2006 application should be considered in establishing the term of the new license.²⁸ Duke Energy states that it has spent over \$54 million to implement measures proposed in its application and Relicensing Agreement to install aeration units and minimum flow valves at the Bridgewater Powerhouse and install the aeration units at the Rhodhiss and Oxford Developments in 2011 and 2013. It argues that, although it implemented the measures as amendments to the original license,²⁹ the measures were developed during relicensing, were included in the application, and would be required to comply with the requirements of North Carolina's water quality certification.

19. We disagree that the \$54 million should be considered as expenditures under its new license. It is the Commission's long-standing policy that, in determining an appropriate license term, we only consider measures required for the first time in the new license (and not measures authorized or required under the previous license).³⁰ The Commission has applied this policy not just to developmental measures, but also to

²⁷ Duke Energy points to the Clackamas Project where the Commission found on rehearing that a 50-year license term was appropriate, after considering the decrease in generation. Rehearing Request at 11 n.5, (citing *Portland General Electric Co.*, 134 FERC ¶ 61,206 (2011) (*PGE-Clackamas*)). However, in *PGE-Clackamas*, the Commission reexamined the measures imposed by the license, which included adding in the decreased generation value. *Id.* P 6. The Commission determined the appropriate license term by reconsidering the specific measures imposed, not by merely including the previously-omitted value of decreased generation.

²⁸ Rehearing Request at 25-30.

²⁹ See *Duke Energy Carolinas, LLC*, 136 FERC ¶ 62,013 (2011) (order amending license to reflect the additional capacity at the new Bridgewater Powerhouse); *Duke Energy Carolinas, LLC*, 142 FERC ¶ 62,173 (2013) (order amending license approving upgrades to generating units at Rhodhiss and Oxford Developments).

³⁰ E.g., *Alabama Power Co.*, 155 FERC ¶ 61,080, at P 72 (2016); *Georgia Power Company*, 111 FERC ¶ 61,183, at P 12 (2005); *Ford Motor Company*, 110 FERC ¶ 61,236, at PP 6-8 (2005).

environmental measures.³¹ Although Duke Energy proposed these measures in its relicensing application, it subsequently made the decision to seek the license amendments required to complete the measures sooner, rather than wait until its new license was issued. Therefore, Duke Energy incurred the costs under its prior license and the costs are not considered in a decision on the term of the new license. Further, to the extent that Duke Energy argues that we should also consider the costs of pursuing relicensing,³² while we consider the costs of the relicensing process in determining a project's economic benefits, such costs are not relevant in considering the appropriate license term.³³

20. Duke Energy also argues that the Commission must extend the license term to 50 years in order to treat the Catawba-Wateree Project as other similarly-situated licensees.³⁴ It asserts that the Commission has issued 50-year licenses for projects with environmental mitigation and enhancement measures and costs that are "clearly comparable" to the Catawba-Wateree Project's measures.³⁵

21. We find the prior cases cited by Duke Energy to be distinguishable. The 366.82-MW Pelton-Round Butte Project is less than half the size of the Catawba-Wateree Project and, accordingly, measures which in that case were deemed to justify a 50-year license

³¹ See, e.g., *Public Utility District No. 1 of Chelan County, Washington*, 126 FERC ¶ 61,138, *reh'g denied*, 127 FERC ¶ 61,152 (2009) (measures undertaken pursuant to habitat conservation plan several years previous not considered in setting license term); *Ford Motor Company*, 110 FERC ¶ 61,236 (costs of, inter alia, shoreline restoration not considered in setting license term).

³² Rehearing Request at 30-31.

³³ *Duke Energy Progress*, 153 FERC ¶ 61,056 at P 43 (citing *Public Service Co. of Colorado*, 79 FERC ¶ 61,148, at 61,639 n.60 (1997)).

³⁴ Rehearing Request at 17-20 (citing *Niagara Relicense*, 118 FERC ¶ 61,206 (2007), *affirmed on reh'g*, *Niagara Rehearing*, 120 FERC ¶ 61,266; *New York Power Authority*, 105 FERC ¶ 61,102 (2003) (St. Lawrence) (St. Lawrence Project); *Portland General Electric Co.*, 111 FERC ¶ 61,450 (2005) (*PGE*) (Pelton-Round Butte Project); *Public Utility District No. 1 of Chelan County*, 117 FERC ¶ 62,129 (2006) (*Chelan County*) (Lake Chelan Project); *Public Utility District No. 1 of Pend Oreille County*, 112 FERC ¶ 61,055 (2005) (*Pend Oreille*) (Box Canyon Project).

³⁵ Rehearing Request at 20.

term, would not necessarily support the same result here.³⁶ Further, in the Pelton-Round Butte order, the Commission explicitly relied on the parties' agreement to a 50-year license term.³⁷ This is both inconsistent with our current settlement policy statement³⁸ and inconsistent with the facts of this case, where the parties did not specifically agree to a 50-year license term.³⁹ The same is true with respect to the St. Lawrence Project, where the Commission explained the license term by noting the parties' agreement on a 50-year term.⁴⁰ The Lake Chelan Project is 48 MW, while the Box Canyon Project is 72 MW, again presenting situations where the extent of the measures required there are not analogous to the measures required here with respect to the much larger Catawba-Wateree Project.⁴¹ Moreover, in setting the license term in these cases, the Commission relied on the general extent of the measures required, rather than basing its determination on a quantitative analysis of costs.⁴²

22. While we agree with Duke Energy that the measures required with respect to the substantially larger Niagara Project do not appear greater than those required for the Catawba-Wateree Project, we view that older case as an outlier that is not consistent with the majority of more recent orders, and thus conclude that it does not require us to extend

³⁶ We also note that the Commission did not, in its discussion of license term, specify the measures that led to its conclusion, making it difficult to use that order as precedent here. *See PGE*, 111 FERC ¶ 61,450 at P 168.

³⁷ *Id.*

³⁸ *See infra* P 24.

³⁹ As discussed further below, section 16.3 of the Relicensing Agreement states that the parties "agree to support a New License term that is not less than 40 years nor more than 50 years." *See discussion infra* P 24.

⁴⁰ *See St. Lawrence*, 105 FERC ¶ 61,102 at P 226.

⁴¹ *Chelan County*, 117 FERC ¶ 62,129 and *Pend Oreille*, 112 FERC ¶ 61,055.

⁴² *See Chelan County*, 117 FERC ¶ 62,129 at P 129 (noting "extensive long-term environmental measures"); *Pend Oreille*, 112 FERC ¶ 61,055 at P 127 (setting forth measures and then determining license term); *PGE*, 111 FERC ¶ 61,450 at P 168 (stating, in setting license term that "the license authorizes an extensive amount of environmental measures"); *St. Lawrence*, 105 FERC ¶ 61,102 at P 228 (2003) (stating separately, after noting the costs of required measures that "the . . . measures to which [the licensee] has committed that are intended to become license obligations are reasonably characterized as extensive").

the license term here. To the extent the Niagara Project orders can be read as basing license term on costs, they are not consistent with our policy of examining primarily the extent of measures in the context of a given project and using costs only as a check on our determination. Moreover, as discussed above, the costs used in our economic analysis are not intended to be precise. Here, the information provided by Duke Energy has been shown to be unsupported and, to at least some degree, inconsistent with the license.⁴³

23. As the Commission has previously stated, “[e]ach project is unique and comparing projects can be difficult.”⁴⁴ We do not agree that the measures required by the other licenses to which Duke Energy cites compel a 50-year license term for the Catawba-Wateree Project. While project measures and related costs might arguably appear to be similar in given cases, it is not possible to compare the measures and related costs required under one license with those of other licenses in the absence of a thorough analysis comparing the size, circumstances, history, environmental and developmental conditions, and other facets of the projects at issue. In particular, the types and costs of measures will often vary depending on the context of the project (e.g., number of developments, installed capacity, amount and type of lands impacted). We agree with Commission staff’s determination that the new measures required under the new license for the Catawba-Wateree Project are moderate.⁴⁵

24. Duke Energy’s argument that the Catawba-Wateree Project should receive a 50-year license because the signatories to the Relicensing Agreement support such a license

⁴³ See *supra* P 15.

⁴⁴ *Duke Energy Progress*, 153 FERC ¶ 61,056 at P 42.

⁴⁵ We also note that it is not clear that all the enhancement and mitigation measures required under the license constitute new measures. As stated in the license order, the measures to enhance recreational opportunities lack specificity and there is evidence that some of the measures have already been implemented. Relicensing Order, 153 FERC ¶ 62,134 at P 216. For example, the license order states that Duke Energy included in its proposal a provision to relocate the existing Cane Creek Access Area to the new 18-acre Spring Park Access Area at the Fishing Creek Development. However, Commission staff approved Duke Energy’s as-built drawings showing the site improvements for the Spring Park Access Area and the closure of the Cane Creek Access Area on October 2, 2010. *Id.*; see also *Duke Energy Carolinas, LLC*, Project No. 2232-542, (October 1, 2010) (delegated letter order); see also *Duke Energy Carolinas, LLC*, 125 FERC ¶ 62,237 (2008) (order approving plan for new Cane Creek Recreation Area). Therefore, despite the fact that this was included as a new measure, it does not appear to be one that would be considered when determining the appropriate license term.

term overstates the language of the agreement. Contrary to the company's contention, the settlement does not provide unequivocal support for a 50-year license, but rather states that the signatories "agree to support a New License term that is *not less than 40 years* nor more than 50 years. [Emphasis added.]"⁴⁶ In any event, as the Commission has previously stated "in reviewing settlements, the Commission looks not only to the wishes of the settling parties, but also at the greater public interest, and whether settlement proposals meet the comprehensive development/equal consideration standard."⁴⁷ We will not extend a license term beyond that dictated by the extent of proposed new activities simply because signatories to a settlement have agreed to such a term.⁴⁸

25. Finally, Duke Energy makes no showing of why it is aggrieved by a 40-year license term. The company does not suggest that it cannot recoup its costs within 40 years or that the license term in any other way causes hardship to it.

26. For the reasons discussed above, we affirm that a 40-year license term is appropriate for the Catawba-Wateree Project.

B. Article 407: Recreation Management Plan

1. Periodic Updates

27. Article 407 requires the licensee to file, for Commission approval, a Recreation Management Plan and, every 10 years from license issuance, to review and identify any additional recreation needs at the project.⁴⁹

28. On rehearing, Duke Energy requests that the Commission modify Article 407 to specify that the first reassessment is required 20 years following license issuance, as

⁴⁶ Settlement Agreement, section 16.3. According to the settlement, if Duke Energy receives a 50-year license term, it would undertake certain additional activities and pay additional money to North and South Carolina. One of the additional measures is installation of a bladder dam at Wateree, which the Relicense Order requires to improve flood control at the development.

⁴⁷ *Settlements in Hydropower Licensing Proceedings under Part 1 of the Federal Power Act*, 116 FERC ¶ 61,270, at PP 3-4 (2006).

⁴⁸ *E.g., Duke Energy Progress*, 153 FERC ¶ 61,056 at P 44; *Northern Lights, Inc.*, 135 FERC ¶ 61,232, at 62,296 (2011).

⁴⁹ Article 407(10), Relicense Order, 153 FERC ¶ 62,134 at 64,383.

agreed upon in the Relicensing Agreement, because the required construction and improvement work may not be completed by the first 10-year assessment period, and preparing the assessment could cause a disruption in the construction/installation work.⁵⁰ Furthermore, Duke Energy believes that conducting a recreation use and needs assessment, as well as discussing potential revisions to the recreation plan 10 years after license issuance, is unnecessary because Article 407 requires the filing of biennial reports documenting the company's progress in completing the required recreation enhancements.⁵¹

29. We disagree. As explained in the Relicense Order, waiting for 20 years after license issuance for the initial review of recreation use and needs at the project is too long.⁵² The last recreation use and needs assessment was done 11 years ago as part of the Catawba-Wateree Project's relicense application, and it showed that recreation use at the project was expected to grow significantly from 2004 to 2050. In addition, the new recreation flow requirements of the Relicense Order have the potential to change recreation use at the project in ways not contemplated by the 2004 report. Duke Energy argues that conducting the initial recreation use and needs assessment in 10 years would likely lead to misleading results because not all the amenities required in the recreation plan would be constructed. However, the assessment and any analysis of it could include the previously planned, but unconstructed improvements, and Duke Energy could point to the existing recreation plan as evidence that the recreation needs would be met without needing to make modifications to the plan.

30. As to the company's argument regarding the biennial reports, the purpose of those reports is to document the progress made on completing the recreation enhancements required by the new license. The reports do not assess project recreation use and needs. For these reasons, requiring the first recreation needs assessment in 10 years, instead of 20 (i.e., by 2025 instead of 2035) is reasonable, and we deny rehearing on this issue.

2. Clarifications & Corrections

31. As pertinent here, the Relicensing Agreement provides that Duke Energy will "offer to lease to [a state agency] at nominal cost the islands in the Great Falls-Cedar

⁵⁰ South Carolina DNR supports Duke Energy's request to require the initial recreational use and needs study in year 20 and every 10 years thereafter, consistent with the Relicensing Agreement. South Carolina DNR's January 15, 2016 letter at 2.

⁵¹ Article 407(9), Relicense Order, 153 FERC ¶ 62,134 at 64,383.

⁵² Relicense Order, 153 FERC ¶ 62,134 at PP 226-227.

Creek Island complex for the [agency] to develop and maintain a new state park. ...”⁵³ Article 407 requires Duke Energy to construct, operate, and maintain certain new recreation sites or enhancements to existing recreation sites that were proposed in the Relicensing Agreement.⁵⁴ Article 407(2)(j)(2) lists one of these sites as “a new state park on islands associated with Dearborn-Great Falls and Rocky Creek-Cedar Creek Developments, totaling approximately 900 acres, that is consistent with public day-use of the project lands... .”⁵⁵

32. Duke Energy requests that we clarify that this provision does not require it to construct the state park, but rather requires it to submit the plans for the state park with its recreation plan, if a park is constructed by the South Carolina agencies. We agree and clarify that Duke Energy does not have to construct a state park. Duke Energy’s obligation under subsection (2) of Article 407 is to include within its Recreation Management Plan the plans that are developed for the new project recreation site on the islands of the Dearborn-Great Falls and Rocky Creek-Cedar Creek Developments.⁵⁶

33. Second, Duke Energy requests that we clarify that Article 407(5) requires only the wildlife viewing facilities that it finds to be needed and feasible. We agree. Article 407(5) requires “an accounting of the project recreation sites where wildlife viewing facilities will be provided, *if any*.” Likewise, paragraph 222 of the Relicense Order states that Article 407 requires Duke Energy to include in its recreation plan a provision for wildlife viewing facilities, “*if determined feasible*.” We will revise Article 407(5) to so clarify.

34. Lastly, Duke Energy requests that the Commission make several corrections to subsection (2) of Article 407 to rectify a number of omissions. We agree that the corrections are necessary and revise Article 407(2) accordingly, as set forth in the ordering paragraphs below.

⁵³ Relicensing Agreement, proposed Article A-9.0, section (B)(10)(a).

⁵⁴ Article 407 references Section 10.1.1 of the Relicensing Agreement, which in turn references the agreement’s proposed license article A-9.0, Recreation Management Plan.

⁵⁵ Relicense Order, 153 FERC ¶ 62,134 at 64,382.

⁵⁶ We note that in the event that a state park is not constructed, Duke must notify Commission staff, so that staff can determine what, if any, further recreation measures need to be implemented at this site.

C. Wateree Floodplain Inundation

35. The Relicense Order states that section 4.0 of the Relicensing Agreement is required by the North Carolina water quality certification, “including measures to inundate the Wateree River floodplain downstream from Wateree Dam and potentially file a license amendment application to formalize floodplain inundation procedures” (section 4.9 of the Relicensing Agreement).⁵⁷ The Relicense Order also states that the South Carolina water quality certification does not explicitly require these measures, but does require Duke Energy to consult with the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and South Carolina Department of Natural Resources (South Carolina DNR) on a proposed license article for the inundation of the Wateree River floodplain.

36. On rehearing, Duke Energy requests that the Commission clarify that section 4.9 of the Relicensing Agreement, entitled “Wateree Floodplain Inundation,” is not a requirement of either the North Carolina or the South Carolina water quality certification and that compliance with the inundation procedures of section 4.9 is not a requirement of the license.

37. The North Carolina certification requires Duke Energy to implement several provisions of the Relicensing Agreement.⁵⁸ Specifically, Condition 8 incorporates by reference the requirements of section 4.0 of the Relicensing Agreement, entitled “Habitat Flow Agreements.” The Habitat Flow Agreements section comprises nine subsections (4.1-4.9) including the Wateree Floodplain Inundation subsection 4.9.⁵⁹ Duke Energy points out that the North Carolina water quality agency confirmed, by letter dated January 14, 2009, that its certification is only based on provisions from the Relicensing Agreement that pertain to North Carolina.⁶⁰ Since the Wateree Floodplain Inundation procedures relate to the Wateree Development, which is located in South Carolina, we clarify that the North Carolina water quality certification does not require compliance with section 4.9 of the Relicensing Agreement.

⁵⁷ Relicense Order, 153 FERC ¶ 62,134 at PP 154-155.

⁵⁸ North Carolina’s 401 Water Quality Certification, filed December 15, 2008, is attached to the Relicense Order as Appendix A.

⁵⁹ Catawba-Wateree Project Comprehensive Relicensing Agreement, Section 4.0 at 4-1 through 4-5 (filed December 29, 2006).

⁶⁰ North Carolina Division of Water Quality’s letter attached to Duke Energy’s letter filed with the Commission on February 2, 2009 (referenced in Appendix A of the Relicense Order at note 219).

38. We also clarify that section 4.9 of the Relicensing Agreement is not a requirement of the South Carolina certification. Although the South Carolina certification incorporates by reference the requirements of section 4.0 of the Relicensing Agreement,⁶¹ it explicitly states that the only requirement of section 4.0 included in the certification is subsection 4.1, entitled “Flow Amounts and Schedules.” Furthermore, South Carolina DNR’s comments stated that it did not intend for the Wateree floodplain inundation procedure to be required by the license.⁶²

D. Flow Levels in the NMFS Biological Opinion

39. Ordering Paragraph (G) of the Relicense Order requires Duke Energy to comply with the reasonable and prudent measures (RPM) and the implementing incidental take terms and conditions (T&C) of the NMFS Biological Opinion set forth in Appendix D of the Relicense Order. RPM No. 3 requires Duke Energy to meet the minimum flow levels specified in the Relicensing Agreement.⁶³ On rehearing, Duke Energy requests that the Commission clarify that RPM No. 3 and T&C No. 3a are subject to the temporary modification provisions of the Low Inflow Protocol (LIP) and the Maintenance and Emergency Protocol (MEP) of the Relicensing Agreement’s flow level provision.

40. The Relicensing Agreement’s minimum flow provisions are set forth in Article 2.0, attached to the Relicense Order at Appendix E.⁶⁴ Subsection (B) of Article 2.0 of the Relicensing Agreement includes a provision allowing for temporary

⁶¹ South Carolina’s Water Quality Certification, filed February 13, 2015, and attached to the Relicense Order as Appendix B.

⁶² South Carolina DNR’s January 15, 2016 filing. We note that Condition 5 of the South Carolina water quality certification does require Duke Energy to consult with the FWS, NMFS, and the South Carolina DNR ten years after the Flow and Water Quality Implementation Plan modifications for the Wateree Development are completed to develop a formal Wateree Floodplain Inundation Plan. Article 401(d) of the license provides that compliance with Condition 5 requires evaluation and a potential license amendment.

⁶³ RPM No. 3 states that “water quantity must meet or exceed levels detailed in Section 6.1, Table 6, to ensure appropriate and sufficient habitat is available to sturgeon...” and T&C No. 3a requires that Duke Energy monitor water quality “to ensure flows meet levels specified in the [Relicensing Agreement] (also found in Section 6.1.1, Table 6 of this [Biological Opinion]).” Relicense Order, 153 FERC ¶ 62,134, Appendix D.

⁶⁴ Relicense Order, 153 FERC ¶ 62,134 at Appendix E.

variances from the minimum flows, “if the Licensee is operating in accordance with the Commission-approved Low Inflow Protocol, Maintenance and Emergency Protocol, or Spring Reservoir Level Stabilization Program.”⁶⁵

41. We agree that RPM No. 3 and T&C No. 3a are subject to the temporary modification provisions under subsection (B) of the Relicensing Agreement’s flow level provision. The NMFS Biological Opinion specifies that Duke Energy must ensure that the flows meet the levels specified in the Relicensing Agreement, which would include the temporary variances of subsection (B). As discussed in the Biological Opinion, NMFS recognized that the Relicensing Agreement included several caveats to meeting the required minimum flows, including the LIP and the MEP.⁶⁶ Nevertheless, to comply with RPM No. 3, T&C No. 3a requires meeting the flows as specified in the Relicensing Agreement. Moreover, both the North Carolina and South Carolina water quality certifications, which are incorporated into the license, specifically require the Relicensing Agreement’s Low Inflow Protocol and Maintenance and Emergency Protocol for the Catawba-Wateree Project,⁶⁷ thereby making the temporary modification provisions applicable to flows under RPM No. 3 and T&C No. 3a.

E. Notification Period for the Temporary Variance of Recreational Flows

42. The Recreational Flows article in Appendix E of the Relicense Order requires Duke Energy to provide specified recreational flow releases at the project developments.⁶⁸ Subsection (G) of the Recreational Flows article allows a temporary variance from the recreational flows if the licensee is operating in accordance with the Commission-approved LIP or the MEP, and requires the licensee to notify the Commission and other interested parties of any such modifications in accordance with the LIP or the MEP, “or within 48 hours of the incident, whichever situation applies, and must provide the reason for the change in project operation.”⁶⁹

⁶⁵ *Id.*

⁶⁶ July 8, 2013 NMFS Biological Opinion, at 64. NMFS noted that the Low Inflow Protocol “provides trigger points and procedures that Duke Energy will follow.”

⁶⁷ Relicense Order, 153 FERC ¶ 62,134 at Appendix A, Condition 8, and Appendix B, Condition 1.

⁶⁸ *Id.* at Appendix E.

⁶⁹ *Id.*

43. On rehearing, Duke Energy requests that the Commission delete from subsection (G) the 48-hour notification requirement, but does not object to the requirement to provide a reason for the change. Duke Energy argues that the 48-hour notification requirement is not necessary and would cause confusion with the notification provisions under the LIP and the MEP.

44. The additional language added to the Recreational Flows article was intended to account for instances where a change in the recreation flows may occur that falls outside of the LIP or MEP. However, in reviewing the language for the temporary variance requirements, we agree that the 48-hour notification requirement may cause confusion. Instead, to ensure that the licensee notifies all interested parties of changes in recreational flows, we revise the Recreational Flows article by removing the 48-hour notification requirement and inserting “or within 10 days of any unplanned event, whichever is earlier, and must provide the reason for the change in project operation.”⁷⁰

F. Modification to Article 405’s Signage Requirement

45. Article 405 of the license requires Duke Energy to install “Stop Aquatic Hitchhikers!” signs to educate visitors on preventing the transport of non-native invasive aquatic species at project boat ramps. The signs must: (1) measure at least 2 x 3 feet; (2) display the trademarked logo of the “*Stop Aquatic Hitchhikers!*” campaign; and (3) specify the procedures to be used in cleaning all recreational equipment before and after boat launching. The signs must be installed after consultation with the relevant resource agencies.

46. On rehearing, Duke Energy requests that the Commission allow it the flexibility to install the signs within existing information kiosks at the project, which would require reducing the size of the signs to 1 foot by 1.5 feet to fit into the kiosks.⁷¹ Given that Duke Energy must consult with the resource agencies regarding the placement of the signs, should the agencies agree that it is appropriate to place the signage within existing information kiosks, thus allowing a smaller size, Duke Energy may do so. Therefore, we will revise Article 405 to make this clear, and require the licensee to file with the Commission documentation of its consultation and size and placement of installed signs.

⁷⁰ A 10-day notification requirement is consistent with the temporary variance procedures for the Recreational Flows and Reservoir Elevation Articles. *Id.*

⁷¹ South Carolina DNR concurred with Duke Energy that there should be flexibility in the size of the signs. South Carolina DNR’s January 15, 2016 letter at 3.

G. Correction to North Carolina Water Quality Certification

47. North Carolina's water quality certification requires Duke Energy to implement certain provisions of the Relicensing Agreement. Specifically, certification Condition 8i incorporates by reference "Proposed License Articles Section A-2.0 for Maximum Flows, Wylie High Inflow Protocol, Flows Supporting Public Water Supply and Industrial Processes, and Flow and Water Quality Implementation Plan." The company asks the Commission to correct North Carolina's reference to "Maximum Flows" because section A-2.0 pertains to "Minimum Flows."⁷² We agree and will revise the reference in Condition 8i of the North Carolina certification in Appendix A of the Relicense Order, as requested.

H. Extensions of Filing Deadlines

48. Articles 202 and 204 require Duke Energy to file a revised Exhibit A and revised Exhibit G drawings, respectively, within 90 days of the effective date of the license. On rehearing, Duke Energy requests that the Commission change the compliance obligation to require instead that the filings be submitted within 90 days of license issuance.

49. On February 3, 2016, Commission staff issued an order granting Duke Energy's request for an extension of time to file revised Exhibit G drawings under Article 204 to August 31, 2016. Duke Energy filed a revised Exhibit A drawing on February 23, 2016. We therefore dismiss this request as moot.

50. On rehearing, Duke Energy requests that the Commission modify the due date required by Article 401(a) of the license for filing documents pertaining to the Trap, Sort, and Transport Facility at Wateree Dam. On January 5, 2016, Commission staff issued an order extending the deadline from December 31, 2015, to April 1, 2016. Duke Energy filed the required plans on March 31, 2016. Therefore, the request to modify Article 401(a) is moot.

51. Article 409 requires the licensee to file geographic information systems (GIS) data within 90 days of license issuance and an updated Shoreline Management Plan (SMP) within 6 months of license issuance. On rehearing, Duke Energy requests that the Commission modify Article 409 to delete the requirement to file GIS data within 90 days of license issuance and replace it with a requirement to include the GIS data with the updated SMP filing.

⁷² The November 14, 2008 North Carolina water quality certification mistakenly referred to "Maximum" Flows; however, section A-2.0 of the Relicensing Agreement includes a proposed article for "Minimum Flows," not "Maximum." Relicensing Agreement at Appendix A, A-8.

52. On January 20, 2016, Duke Energy filed a request for an extension of time to file an updated SMP and related GIS data. On January 29, 2016, Commission staff issued an order synchronizing and extending to November 30, 2016, the deadlines for filing the GIS data and an updated SMP under Article 409. Therefore, the request to modify Article 409 is moot.

I. Miscellaneous

53. Duke Energy notes certain errors in the description of project works for the Bridgewater Development, the Lookout Shoals Development, and the Wylie Development in Ordering Paragraph (B). Additionally, Duke Energy states that references in Ordering Paragraph (B)(2) to the normal maximum elevations for all of the developments, except the Cowans Ford Development, are incorrect,⁷³ and that the normal maximum elevation for each development is the same as the full pond elevation for each development. To correct this error, Duke Energy requests that the Commission delete the references to the normal maximum elevations in Ordering Paragraph (B)(2) for each of the developments and rely on references to the full pond elevation for each development in Appendix E of the Relicense Order. Duke Energy also states that the descriptions of the project works do not all include the maximum hydraulic capacities of the developments' turbines, and in the case of the Oxford Development (one of only two developments with the maximum hydraulic capacity listed), it is incorrect. Duke Energy requests that the Commission revise Ordering Paragraph (B) to include the correct maximum hydraulic capacities for all developments.

54. We agree that the corrections are necessary, and as set forth in the ordering paragraphs below, we revise the project description accordingly.

55. Lastly, Duke Energy requests that the Commission delete the word "Proposed" from the title of Appendix E, which sets forth the license articles included in the Relicensing Agreement, and add an ordering paragraph after Ordering Paragraph (G) and before (H) to specifically incorporate Appendix E into the license order. We deny this request.

56. Pursuant to Ordering Paragraphs (D) and (E), the license is subject to North Carolina's and South Carolina's water quality certifications, as set forth in Appendices A and B, respectively, of the license order. Condition 8 of the North Carolina certification and Condition 1 of the South Carolina certification require compliance with several

⁷³ We note that the descriptions of the normal maximum elevations and the full pond elevations in Ordering Paragraph (B) reflect a difference of about 1 foot msl, and there is no reference in Ordering Paragraph (B) to a normal maximum elevation for the Bridgewater Development reservoir.

proposed license articles in the Relicensing Agreement. Appendices A and B specifically note in footnotes 218 and 220 that the proposed license articles listed in the certifications are included in Appendix E and have been modified, as necessary, to facilitate the Commission's administration of the license.⁷⁴ Therefore, the license includes the substance of most of the Relicensing Agreement's license articles, and we do not find it necessary or appropriate to include a separate ordering paragraph to incorporate Appendix E into the license order.

The Commission orders:

(A) Duke Energy's request for rehearing of the November 25, 2015 Order issuing a new license for the Catawba-Wateree Project, filed December 21, 2015, is granted in part and clarified in part to the extent set forth in this order, and is otherwise denied.

(B) The following corrections and revisions are made to the November 25, 2015 Order in *Duke Energy Carolinas, LLC*, 153 FERC ¶ 62,134 (2015):

(1) Ordering Paragraph (B) is revised in item (2) as follows:

(a) the description of the Bridgewater Development is revised to read:

Bridgewater Development consisting of: (a) a 6,754-acre reservoir (Lake James) at full pond elevation 1,200 feet msl; (b) the 120-foot-high, 3,155-foot-long Catawba Dam which includes three sluice gates and a continuous minimum flow discharge system; (c) the 165-foot-high by 1,610-foot-long Paddy Creek Dam; (d) the 160-foot-high by 1,325-foot-long Linville Dam; (e) an intake with three bays, three vertical lift gates, and three 14-inch-diameter bypass gate valves; (f) an approximately 900-foot-long penstock, connecting the intake to a powerhouse; (g) a concrete powerhouse containing two vertical-Francis turbine/generator units, and one horizontal-shaft Francis turbine/generator unit, with a maximum hydraulic capacity of 3,260 cfs and a total installed capacity of 27.867 MW; and (h) appurtenant facilities.

(b) the description of the Rhodhiss Development is revised to read:

Rhodhiss Development consisting of: (a) a 2,724-acre reservoir (Lake Rhodhiss) at full pond elevation 995.1 feet msl; (b) a 72-foot-high, 1,517-foot-long dam consisting of (i) a 119.6-foot-long left concrete gravity non-overflow section, (ii) a 194-foot-long concrete powerhouse intake section consisting of three intakes protected by trashracks and headgates, (iii) an 800-foot-long, 70-foot-high

⁷⁴ See Relicense Order, 153 FERC ¶ 62,134 at Appendix A.

ungated ogee spillway with a crest elevation of 995.1 feet msl, (iv) a 55-foot-high 119.6-foot-long right concrete non-overflow section, and (v) a 35-foot-high 283.8-foot-long earthen embankment non-overflow section extending to the right bank; (c) a 194-foot-wide by 60-foot-deep concrete powerhouse integral with the dam containing three vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 8,325 cfs and total installed capacity of 32.225 MW; (d) a 0.17-mile-long, 44-kV transmission line to the Rhodhiss Tie sub-station; and (e) appurtenant facilities.

(c) the description of the Oxford Development is revised to read:

Oxford Development consisting of: (a) a 4,072-acre reservoir (Lake Hickory) at full pond elevation 935 feet msl; (b) a 142-foot-high, approximately 1,394-foot-long dam consisting of (i) a 193-foot-long emergency overflow spillway section with a crest elevation of 936 feet msl, (ii) a 7.5-foot-long left non-overflow wall, (iii) a 540-foot-long gated spillway section with ten 25-foot-high by 45-foot-wide vertical lift gates, (iv) a 124-foot-long by 65-foot-wide concrete powerhouse intake section consisting of two intakes protected by trashracks and headgates, (v) a 429-foot-long right concrete non-overflow section; and (vi) a 55-foot-long sheet pile wall non-overflow section extending to the right bank; (c) a 124-foot-wide by 65-foot-deep concrete powerhouse integral with the dam containing two vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 6,755 cfs and total installed capacity of 35.85 MW; and (d) appurtenant facilities.

(d) the description of the Lookout Shoals Development is revised to read:

Lookout Shoals Development consisting of: (a) a 1,155-acre reservoir (Lookout Shoals Reservoir) at full pond elevation 838.1 feet msl; (b) an 88-foot-high, approximately 2,731-foot-long dam consisting of (i) a left 282.1-foot-long concrete non-overflow section, (ii) a 176.1-foot-long concrete powerhouse intake section with four intakes protected by trashracks, (iii) a 933-foot-long ungated ogee spillway section with a crest elevation of 838.1 feet msl, (iv) a 65-foot-long right concrete non-overflow section, and (v) an approximately 1,287-foot-long earthen embankment section leading to the right bank; (c) a 176-foot-wide by 56-foot-deep concrete powerhouse integral with the dam containing three vertical-Francis turbine/generator units each rated at 8.325 MW and two vertical Francis turbine-generator units each rated at 0.370 MW, with a maximum hydraulic capacity of 5,304 cfs and a total installed capacity of 25.715 MW; (d) a 0.2-mile-long, 100-kV transmission line leading to the Lookout Tie Sub-station; and (e) appurtenant facilities.

(e) the description of the Cowans Ford Development is revised to read:

Cowans Ford Development consisting of: (a) a 32,339-acre reservoir (Lake Norman) at full pond elevation 760 feet msl; (b) a 130-foot-high, approximately 8,738-foot-long dam consisting of (i) a left concrete non-overflow section, (ii) 465-foot-long gated concrete spillway section with 11 Tainter gates, each 28 feet high by 35 feet wide, (iii) a 328-foot-long concrete powerhouse intake section with four intakes protected by trashracks, (iv) a 276-foot-long right concrete non-overflow section, and (v) an earthen embankment extending to the right river bank; (c) a 3,139-foot-long earthen saddle dike (Hicks Crossroads Dike) located east of the main dam; (d) a 328-foot-wide by 127-foot-deep concrete powerhouse integral with the dam containing four Kaplan turbine/generator units, with a maximum hydraulic capacity of 54,400 cfs and a total installed capacity of 332.5 MW; (e) a 1.67-mile-long, 230-kV transmission line leading to the McGuire Switching Station; and (f) appurtenant facilities.

(f) the description of the Mountain Island Development is revised to read:

Mountain Island Development consisting of: (a) a 3,117-acre reservoir (Mountain Island Lake) at full pond elevation 647.5 feet msl; (b) a 140-foot-high, approximately 2,372-foot-long dam consisting of, from left to right, (i) a 997-foot-long, ungated, ogee spillway with a crest elevation at 647.5 feet msl, (ii) a left 259-foot-long concrete non-overflow section, (iii) a 246-foot-long concrete powerhouse intake section with four intakes protected by trashracks and headgates, (iv) a right 200-foot-long non-overflow section, and (v) an approximately 670-foot-long earthen embankment extending to the right river bank; (c) a 0.7-mile-long bypassed reach located downstream of the spillway; (d) a 246-foot-wide by 65-foot-deep concrete powerhouse containing four vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 11,710 cfs and a total installed capacity of 55.05 MW; and (e) appurtenant facilities.

(g) the description of the Wylie Development is revised to read:

Wylie Development consisting of: (a) a 12,177-acre reservoir (Lake Wylie) at full pond elevation 569.4 feet msl; (b) a 119-foot-high, approximately 3,165-foot-long dam consisting of, from left to right, (i) a 234-foot-long left concrete non-overflow section, (ii) a 272-foot-long concrete powerhouse intake section with four intakes protected by trashracks, (iii) a 265-foot-long gated spillway section with five vertical lift gates with a crest elevation of 539.4 feet msl, (iv) a 157-foot-long ungated ogee spillway section with a crest elevation of 569.4 feet msl, (v) a 320-foot-long gated spillway section with six vertical lift gates with a crest elevation of 539.4 feet msl, (vi) a 401-foot-long concrete non-overflow section, and (vii) an earth embankment extending to the right river bank; (c) a 271-foot-wide by 72-foot-deep concrete powerhouse containing four vertical-

Francis turbine/generator units, with a maximum hydraulic capacity of 14,921 cfs and a total installed capacity of 69 MW; and (d) appurtenant facilities.

(h) the description of the Fishing Creek Development is revised to read:

Fishing Creek Development consisting of: (a) a 3,431-acre reservoir (Fishing Creek) at full pond elevation 417.2 feet msl; (b) a 97-foot-high, approximately 1,770-foot-long dam consisting of (i) a 114-foot-long ungated spillway section with a crest elevation of 417.2 feet msl, (ii) a 1,210-foot-long gated ogee spillway section with twenty-two 25-foot-high by 45-foot-wide vertical lift gates, (iii) a 205-foot-long concrete powerhouse intake section with five intakes protected by trashracks, and (iv) a 214-foot-long concrete non-overflow section extending to the right river bank; (c) a 259-foot-wide by 50-foot-deep concrete powerhouse containing five vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 12,208 cfs and a total installed capacity of 48.12 MW; and (d) appurtenant facilities.

(i) the description of the Great Falls and Dearborn Development is revised to read:

Great Falls and Dearborn Development consisting of: (a) a 1,558-foot-long diversion dam (Great Falls), with a 1,226-foot-long uncontrolled spillway with a crest elevation of 355.8 feet msl; (b) a 353-acre reservoir (Great Falls) at full pool elevation at 355.8 feet; (c) a 2.25-mile-long bypassed reach (Great Falls Long Bypassed Reach); (d) a 0.75-mile-long bypassed reach (Great Falls Short Bypassed Reach); (e) Canal Headworks which includes (i) a 270-foot-long intake section (Canal Intake) protected by trashracks, (ii) a 447-foot-long main spillway with a gated trashway, and (iii) a 562-foot-long canal spillway with 4-foot-high flashboards which overflow at crest elevation 355.8 feet msl; (f) the 133-foot-high, 950-foot-long Great Falls-Dearborn Dam consisting of (i) a 160-foot-long non-overflow section (Dearborn), (ii) a concrete intake section (Dearborn) with three intakes protected by trashracks and head gates, (iii) a 65-foot-long non-overflow section (Dearborn), (iv) a 685-foot-long concrete non-overflow section (Great Falls) leading to the right river bank, and (v) a concrete intake section (Great Falls) with nine intakes protected by trashracks; (g) the 244-foot-wide by 49-foot-deep concrete Great Falls Powerhouse containing (i) four horizontal-shaft Francis turbine-generator units and an exciter unit, with a maximum hydraulic capacity of 3,314 cfs and a total installed capacity of 12.0 MW, (ii) two 0.20-mile-long, 44-kV transmission lines leading to the Great Falls Switching Station, and (iii) appurtenant facilities; (h) the 182-foot-wide by 50-foot-deep concrete Dearborn Powerhouse containing (i) three vertical-Francis turbine-generator units with a maximum hydraulic capacity of 9,111 cfs and a total installed capacity of 42 MW, (ii) a 0.13-mile-long, 100-kV transmission line and a 0.08-mile-long 44-kV transmission line leading to the Great Falls Switching Station, and (iii) appurtenant

facilities.

(j) the description of the Rocky Creek and Cedar Creek Development is revised to read:

Rocky Creek and Cedar Creek Development consisting of: (a) a 748-acre reservoir (Cedar Creek Reservoir) at full pond elevation 284.4 feet msl; (b) a 69-foot-high, approximately 1,219-foot-long dam consisting of (i) the left Cedar Creek non-overflow section, (ii) the concrete Cedar Creek intake section, with three intakes protected by trashracks and head gates, (iii) the Cedar Creek gated spillway section with two vertical lift gates, (iv) the Cedar Creek uncontrolled spillway section with a crest elevation of 284.4 feet msl, (v) the Rocky Creek canal non-overflow section, and (vi) the Rocky Creek intake section, with nine intakes protected by trashracks; (c) a 206-foot-wide by 66-foot-deep concrete powerhouse (Cedar Creek Powerhouse) containing three vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 10,716 cfs and a total installed capacity of 42.975 MW; (d) a 242-foot-wide by 40-foot-deep concrete powerhouse (Rocky Creek Powerhouse) containing four vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 3,808 cfs and a total installed capacity of 13.8 MW; (e) two 2.0-mile-long, 100-kV transmission lines extending from the switching station at the Cedar Creek Powerhouse to the Great Falls switching station; and (f) appurtenant facilities.

(k) the description of the Wateree Development is revised to read:

Wateree Development consisting of: (a) a 13,025-acre reservoir (Lake Wateree) at full pond elevation 225.5 feet msl; (b) a 76-foot-high, approximately 1,753-foot-long dam consisting of (i) a 1,450-foot-long ungated ogee spillway section with a crest elevation of 225.5 feet msl, (ii) a new 10,000 cubic-feet-per-second inflatable bladder dam, (iii) a concrete powerhouse intake section with five intakes protected by trashracks, and (iv) a 1,370-foot-long earth/concrete embankment extending to the right river bank; (c) a 284-foot-wide by 52-foot-deep concrete powerhouse, integral with the dam, containing five vertical-Francis turbine/generator units, with a maximum hydraulic capacity of 15,880 cfs and a total installed capacity of 82 MW; and (d) appurtenant facilities.

(2) Article 405 of Ordering Paragraph (H) is revised to read:

Article 405. Invasive Aquatic Species Educational Signage. Within one year of license issuance, the licensee must install “Stop Aquatic Hitchhikers!” signs to educate visitors at the Catawba-Wateree Project on preventing the transport of non-native invasive aquatic species at the licensed project boat ramps. To ensure use of the current signage design from the “Stop Aquatic Hitchhikers!” campaign or alternative signage developed by resource agencies, the signs must be

installed after consultation with the U.S. Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, the North Carolina Department of Environment and Natural Resources, and the South Carolina Department of Natural Resources. The signs must: (1) measure at least 2 x 3 feet, unless otherwise agreed to in consultation with the resource agencies; (2) display the trademarked logo of the “Stop Aquatic Hitchhikers!” campaign; and (3) specify the procedures to be used in cleaning all recreational equipment before and after boat launching.

Within 60 days of completion of the installation of the signs, the licensee must file with the Commission photographs of the installed signs, documentation of consultation, as well as a table or map identifying the locations of all sites where the signs have been installed, including the size and placement of the signs.

(3) Article 407 of Ordering Paragraph H is revised as follows:

(i) Article 407, subpart (2) is revised as follows:

(1) Sub-paragraph (a) is revised to read:

(a) At the Bridgewater Development: (1) restrooms, shade trees, shoreline buffer, trails, primitive camping sites, picnic facilities, and either a fishing pier or bank fishing trail, if suitable conditions for a fishing pier are not available, at the existing Black Bear Access Area; (2) two boat ramps for trailered motor boats, one courtesy dock, lighted and paved parking area, an access road, and a vault toilet at a new, approximately 10-acre New Linville Access Area; (3) picnic facilities, shade trees, restrooms, and conversion of the existing boat ramp to a canoe/kayak launch site at the existing Linville Access Area; (4) parking, picnic facilities, overlooks, and a bank fishing trail at a new, approximately 10-acre Pocket Park at Linville Dam for Lake James Loop Trail; (5) restrooms, a boat ramp for trailered boats, additional parking, and picnic facilities at the existing Bridgewater Access Area; and (6) canoe/kayak access with approximately 10 gravel parking spaces at a new, 1 to 3-acre Muddy Creek Access Area;

(2) Sub-paragraph (e) is revised to read:

(e) At the Cowans Ford Development: (1) picnic facilities, a fishing pier, swimming area, restrooms, and shade trees at the existing Beatty’s Ford Access Area; (2) additional paved parking, trails, bank fishing, picnic facilities, restroom, and if site conditions allow, a fishing pier, at the existing Hagers Creek Access Area; (3) a fishing pier, picnic facilities, a trail, restrooms, and additional paved parking at the existing Stumpy Creek

Access Area; (4) restrooms, a fishing pier, paved parking, and a picnic shelter at the existing Little Creek Access Area; (5) trails, bank and/or pier fishing, picnic facilities, a swimming area, boat access facilities, and restrooms at the existing Island Point Access Area; and (6) a portage trail, a reservoir overlook with benches, and approximately 10 gravel parking spaces at the new Cowans Ford Dam Portage and Overlook;

(3) Sub-paragraph (h) is revised to read:

(h) At the Fishing Creek Development: (1) a fishing pier, additional paved parking, picnic facilities, restrooms, and a swimming area, if feasible, at the existing Fishing Creek Access Area; and (2) a platform, pier, or bank fishing trail and paved parking at a new Fishing Creek Tailrace Fishing Area; and (3) a bank fishing trail, fishing pier, and additional parking at the Springs Park Access Area.

(ii) Article 407, sub-part (5) is revised as follows:

Provisions for wildlife viewing facilities (e.g., wildlife viewing platforms) that are determined to be needed and feasible, after consultation with the North Carolina Wildlife Resources Commission and the South Carolina Department of Natural Resources, at selected project recreation sites within the project boundary to be constructed within 20 years following Commission approval of the RMP, as discussed in section 10.5 of the Comprehensive Relicensing Agreement. At a minimum, the RMP must include: (1) the methods and criteria used to select the recreation sites to provide wildlife viewing facilities; (2) an accounting of the project recreation sites where wildlife viewing facilities will be provided, if any; and (3) conceptual drawings and specifications, cost estimates, and a schedule for implementing the measure(s).

(4) Appendix A, Condition 8i of the North Carolina 401 Water Quality Certification is revised to read:

Appendix A: Proposed License Articles Section A-2.0 for Minimum Flows, Wylie High Inflow Protocol, Flows Supporting Public Water Supply and Industrial Processes, and Flow and Water Quality Implementation Plan.

(5) Appendix E, Subsection (G) of A-2.0 Flow Articles: Article – Recreational Flows is revised to read:

Temporary Variances – The flows and schedules for the recreational flow releases outlined in Paragraphs (A) through (F) above may be temporarily modified if the Licensee is operating in accordance with the Commission-

approved Low Inflow Protocol or the Maintenance and Emergency Protocol. The Licensee must notify the Commission, the resource agencies and other interested parties of any such modifications in accordance with the Low Inflow Protocol or the Maintenance and Emergency Protocol, or within 10 days of any unplanned event, whichever is earlier, and must provide the reason for the change in project operation.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.