PRE-FILED DIRECT TESTIMONY OF JOHN COLLINS ON BEHALF OF CUBE YADKIN GENERATION, LLC NCUC DOCKET NO. E-2, SUB 1177, E-7, SUB 1172

1		<u>INTRODUCTION</u>
2	Q.	PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is John R. Collins. I am currently president and chief executive officer of First State Advisers, LLC, a consulting firm, based in Rehoboth Beach, Delaware. The company's address is 49 W. Side Dr., Rehoboth Beach, Delaware, 19971. Previously, I worked for Cube Hydro Partners, LLC ("Cube Hydro") as executive vice president and later as president and chief executive officer. Cube Hydro's address is Two Bethesda Metro Center, Suite 1130, Bethesda, Maryland 20814. I also served as president of Complainant, and Cube Hydro's affiliated company, Cube Yadkin Generation, LLC ("Cube Yadkin") based in Bethesda, Maryland and at the same address as Cube Hydro. Cube Hydro was purchased by Ontario Power Generation and was merged with Eagle Creek Renewable Energy.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I have more than thirty (30) years of experience in the merchant energy and regulated utility business, including the nuclear, natural gas, and hydroelectric generation. I was employed with Cube Hydro for eight (8) years and had been actively engaged in the oversight of project development of Cube Hydro-initiated projects during this time and the acquisition of additional hydroelectric facilities, including the four facilities that are the subject of these dockets. Further, I have been personally involved in the development and acquisition of more than 385 MWs of hydroelectric projects across five states, including experience related to the self-certification of energy facilities as Qualifying Facilities ("QFs") under the Public Utility

- 1 Regulatory Policies Act of 1978, 16 U.S.C. § 824a-3 ("PURPA"). Prior to joining Cube Hydro,
- 2 the majority of my career was spent with Constellation Energy Group and its affiliate, Baltimore
- 3 Gas & Electric Company, in various financial and executive leadership positions. I earned a
- 4 Bachelor of Science in Business Administration from the University of Delaware. I also earned a
- 5 Master's in Business Administration with a concentration in finance and strategic planning from
- 6 the University of Pittsburgh.
- 7 Q. **PLEASE YOUR DESCRIBE** RELATIONSHIP WITH THE 8

COMPLAINANT IN THIS DOCKET AND YOUR EMPLOYMENT RESPONSIBILITIES.

- 9 A. The Complainant, Cube Yadkin, was an affiliated company of Cube Hydro through
- 10 Cube Yadkin's managing member, Cube Hydro Carolinas, LLC. Cube Yadkin is a Delaware
- 11 limited liability company that manages four hydroelectric power facilities on the Yadkin River.
- 12 Cube Hydro Carolinas LLC served as the managing member of Cube Yadkin, and is an affiliate
- 13 of Cube Hydro. As the affiliate of Cube Yadkin, Cube Hydro was responsible for all stages of the
- 14 acquisition and operation of four hydroelectric power facilities on the Yadkin River, including the
- 15 three facilities that are the subject of this proceeding. Cube Hydro was also responsible for the
- 16 negotiation of power purchase agreements ("PPAs") with Respondents Duke Energy Progress,
- 17 LLC ("DEP) and Duke Energy Carolinas, LLC ("DEC") (collectively, "Duke"). In my roles at
- 18 Cube Hydro, I was responsible for the acquisition of the four hydroelectric power facilities and for
- 19 negotiating the PPAs with Duke. I have knowledge of, and had primary final decision-making
- 20 authority concerning, the negotiation of PPAs for the output of the four hydroelectric power
- 21 facilities.
- Following Cube Yadkin's acquisition of the Yadkin plants, its mission was to modernize, 22
- 23 manage and optimize the four hydroelectric facilities and continue to pursue the development and

- acquisition of hydroelectric generating facilities in the southeast region, including North Carolina.
- 2 Cube Yadkin and its affiliates are skilled in all aspects of hydroelectric project acquisition,
- 3 development, and operation, including federal, state, and local permitting processes and
- 4 requirements.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. I have not previously testified before the North Carolina Utilities Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide the Commission with background information about the acquisition of the four hydroelectric facilities, including three of the facilities which are QFs under PURPA (the "Cube QFs"), and the negotiations with Duke for PPAs concerning the same. The information I am providing will serve to demonstrate that Cube Yadkin clearly committed to sell the output of the Cube QFs to Duke, and sufficient to establish legally enforceable obligation ("LEO"), before November 2016; and further, that the Complainant's request for a waiver of the Commission's requirement for use of Duke's Notice of Commitment Form ("NoC") to establish an LEO is justified.

Q. PLEASE DESCRIBE THE COMPANY'S TECHNICAL EXPERIENCE AND FINANCIAL CAPABILITIES TO OWN AND OPERATE THE CUBE QFS.

A. As described in the Complaint, Cube Yadkin is a Delaware limited liability company, authorized to transact business in North Carolina. Cube Yadkin is in the business of owning, developing, and modernizing hydroelectric facilities and is the owner of the three hydroelectric QFs that are the subject of this proceeding. Cube Hydro was a hydropower development and operating platform targeting investments in mid-size hydroelectric projects in the United States and Canada. Cube Hydro and Cube Yadkin have since been purchased by

- 1 Ontario Power Generation and merged with Eagle Creek Renewable Energy ("Eagle Creek").
- 2 Prior to their sale, Cube Hydro and Cube Yadkin were principally owned by I Squared Capital
- 3 Advisors, a \$13 billion private equity firm that is an independent global infrastructure investment
- 4 manager focused on energy, utilities, telecommunications, and transport in the Americas, Europe,
- 5 and Asia. At the time and as merged into Eagle Creek, Cube Hydro and Cube Yadkin had
- 6 extensive experience in developing and operating hydroelectric facilities safely, innovatively, in
- 7 compliance with federal, state, and local laws, and in a socially responsible manner. I stepped
- 8 down as president and CEO of Cube Hydro and its affiliates following the Eagle Creek acquisition.

Q. WHAT WAS THE TIMELINE FOR PURCHASING THE CUBE QFS?

- A. As early as 2013, Cube Hydro began discussions with Alcoa Power Generating Inc.
- 11 ("Alcoa") related to the purchase of the four hydroelectric facilities. Ultimately, in 2016, Cube
- Hydro entered negotiations to purchase the facilities and began the due diligence process in early
- 2016. On or about June 30, 2016, Cube Hydro and Alcoa entered into a purchase agreement for
- the facilities. Alcoa and Cube Hydro prepared and filed with the Federal Energy Regulatory
- Commission ("FERC") a request to transfer the license for the facilities from Alcoa to Cube Hydro
- in September 2016. The license was transferred by order of FERC in January 2017. The closing
- on the purchase of the facilities was completed on February 1, 2017.

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Q. DESCRIBE THE FACILITIES PURCHASED BY COMPLAINANT.

- 19 A. The facilities purchased from Alcoa include four hydroelectric stations, dams and
- 20 reservoirs along a 38-mile stretch of the Yadkin River as it flows through Davidson, Montgomery,
- 21 Davie, Rowan and Stanly Counties. The four purchased facilities are commonly referred to as:
- 22 High Rock, Tuckertown, Falls, and Narrows, with the first three being QFs under PURPA and the

1 subject of this proceeding. From upstream to downstream, the three Cube OFs can be described as follows: 2 (1) The High Rock facility, placed in service on or about January 1, 1927, consists 3 of a 14,400-acre reservoir at full pool elevation with a usable capacity of 217,400 4 acre-feet. Its reservoir is impounded by a 936-foot-long, 101-foot high dam. The 5 powerhouse is integral with the dam and contains three turbine/generator units with 6 a total installed capacity of 40.32 MW after several upgrades including 7 turbine/generator refurbishment. The powerhouse's address is 3344 Bringle Ferry 8 9 Road, Denton, North Carolina 27239. (2) The Tuckertown facility, placed in service on or about January 1, 1962, consists 10 of a 2,560-acre reservoir at a full pool elevation of 564.7 feet, with a usable capacity 11 of 6,700 acre-feet. Its reservoir is impounded by a 1,370-foot-long, 76-foot-high 12 dam. Its powerhouse is integral with the dam and contains three turbine/generator 13 units with a total installed capacity of 38.04 MW. The powerhouse's address is 711 14 Tuckertown Road, New London, North Carolina 28127. 15 (3) The Falls facility, placed in service on or about January 1, 1917, consists of a 16 17 204-acre reservoir at a full pool elevation of 332.8 feet, with a usable capacity of 940 acre-feet. Its reservoir is impounded by a 748-foot-long, 112-foot-high dam. 18 Its powerhouse is integral with the dam and contains three turbine/generator units 19 20 with a total installed capacity of 31.13 MW. The powerhouse's address is 49156 Falls Road, Badin, North Carolina 28009. 21 Together (along with the Narrows facility), the four purchased facilities have a total generating 22 23 capacity of approximately 220 megawatts ("MW") and they are expected to produce nearly

- 1 800,000 MWh of clean, reliable electricity per year enough to power approximately 72,000
- 2 homes with renewable energy. Downstream of these facilities are two additional hydroelectric
- 3 facilities, Tillery and Blewette Falls. These facilities are licensed by DEP as the Yadkin-Pee Dee
- 4 Project.

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- 5 The four facilities originally operated under a 50-year FERC license issued to Carolina
- 6 Aluminum Company on May 19, 1958, later transferred to Alcoa on July 17, 2000. After operating
- 7 under short-term, annual licenses and Alcoa's initiation of the re-licensing process, on September
- 8 22, 2016, FERC issued a new long-term license to Alcoa authorizing the operation and
- 9 maintenance of the facilities until March 31, 2055 (the "License").
- The three Cube QFs have undergone, and will undergo further, substantial modifications
- 11 as required by the License. These modifications include addressing the following:
- 12 turbine/generator efficiency, water quality, protection of aquatic habitat, fish populations,
- wetlands, recreational opportunities, and aesthetics. Pursuant to the Order issuing the License,
- 14 FERC estimated a total capital cost in excess of \$112 million for the turbine/generator
- modifications and water quality measure alone. While Cube Yadkin's scope of work and budget
- has been reduced below this amount, the required modifications are significant and allow these
- 17 QFs to be treated as "new" capacity under PURPA.

Q. WHY DID COMPLAINANT PURCHASE THE CUBE QFS?

- A. Cube Hydro Carolinas, LLC purchased these facilities to continue to facilitate
- Cube Hydro's efforts to demonstrate the value of renewable hydropower and reduce the nation's
- reliance on carbon-based energy. The facilities further provided Cube Hydro an opportunity to
- expand its presence into North Carolina and upgrade the plants on the Yadkin River. Further, the
- facilities were purchased with the intent to be able to sell power and capacity to Duke. One goal

of the acquisition was to modernize the facilities with the expectation that Cube Hydro would be
able to sell power through the three Cube QFs at avoided cost rates.

- Q. DESCRIBE THE PERMITS AND APPROVALS YOU SOUGHT FOR THE PURCHASE OF THE QFS.
- A. As noted previously, Cube Hydro sought, and was granted, a transfer of the FERC license from Alcoa. Further, at Duke's suggestion, and reflecting the substantial investment in the modernization and renewal of the Cube Yadkin facilities, Cube Yadkin sought registration of all four of the facilities as New Renewable Energy Facilities on or about March 16, 2017. Alcoa had previously certified each of the three QFs as Qualifying Facilities under PURPA. On or about September 28, 2016, Cube Yadkin filed revised Form 556's with FERC reflecting the planned change in ownership.
- Q. DID CUBE HYDRO OBTAIN A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY ("CPCN") FOR THE CUBE QFS?

No, because Cube Hydro determined, based on reasonable diligence and available information, that a CPCN was not required, and indeed could not be obtained. North Carolina statute requires that a CPCN be obtained only before a public utility or other person "begin[s] the construction" of a generating facility. N.C. Gen. Stat. § 62-110.1(a). The statute implementing that requirement was enacted in 1965, at which time the Cube QFs were already constructed and had been selling power in North Carolina for decades. Accordingly, the Cube QFs would not be required to receive a CPCN, as they existed before the creation of the CPCN requirement. Cube's review of existing precedent indicated that the Commission had not required any other generating facility that had been constructed built before the CPCN statute to obtain a CPCN to continue operating. The company, through counsel, sought advice from the Public Staff of the North

- 1 Carolina Utilities Commission as to whether the facilities could proceed without a CPCN. Based
- on its analysis of the law and the response from the Public Staff, Cube concluded that no CPCN
- 3 was required for the facilities.

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Q. HOW ARE THE CUBE QFS INTERCONNECTED TO THE GRID?

- A. The facilities are (and have, for decades, been) interconnected to the Yadkin
- 6 Transmission System, a distinct Balancing Authority Area that is interconnected to DEC ad DEP's
- ystems. There is an interconnection agreement with the facilities, and they were interconnected
- 8 at three separate points (two for DEC and one for DEP). The power from the facilities flows from
- ⁹ the Yadkin Transmission System into the Duke system.

Q. WHEN DID THE COMPLAINANT FIRST NOTIFY RESPONDENTS OF ITS

INVESTMENT IN THE QFS?

- A. Cube Hydro reached out to Duke in March 2016 on behalf of Cube Yadkin, prior
- to signing the purchase agreement with Alcoa, as part of the due diligence process to both introduce
- itself and to explore the possibility of a long-term PPA with Duke. Alcoa was aware of this
- outreach, and not only authorized but also encouraged it.

Q. WHEN DID COMPLAINANT APPROACH RESPONDENTS FOR THE

17 SALE OF POWER FROM THE QFS?

- A. In March 2016, Cube Hydro approached Duke for an introduction and to determine
- how Duke would approach a long-term PPA. Further, immediately after executing the purchase
- agreement with Alcoa, Cube Hydro contacted Duke to begin discussions on a long-term PPA for
- the Cube QFs.

Q. PLEASE DESCRIBE THE NEGOTIATIONS BETWEEN COMPLAINANT AND RESPONDENTS FOR THE PURCHASE OF THE QFS ENERGY AND CAPACITY PURSUANT TO PURPA.

A. Beginning in March 2016, Cube Hydro conducted meetings with Duke to determine how Duke would approach a long-term PPA. These communications involved the following individuals: from Cube Hydro, Kristina Johnson, then-CEO, Andrew Longenecker, Director of Business Development, and Neal Simmons, Vice President of Optimization and Research & Development; and from Duke, Dhiaa Jamil, President, Regulated Generation and Transmission, Matthew Palasek, Director of Corporate Development, Charles Gates, Senior Vice President and Chief Fossil / Hydro Officer, and Ronald Reising, Senior Vice President of Operations Support. Cube Hydro informed Duke that they were pursuing the purchase of the QFs and desired to enter into a long-term PPA with Duke. In response, Duke noted that it wanted to have discussions concerning potential offtakes and buying power from the Cube QFs, as well as seeking an understanding of how Cube would control and own the Cube OFs.

During follow-up conversations and after an in-person meeting in or around June 2016, Duke and Cube Hydro continued discussions concerning the PPAs for the Cube QFs. Alcoa was aware of, involved in, and approved these discussions before and after signing the purchase agreement. Moreover, Duke was aware that Cube Hydro was fully authorized to negotiate PPAs on behalf of the Cube QFs. After the purchase agreement was executed by Alcoa and Cube Hydro, I reached out to Regis Repko, Senior Vice President and Chief Fossil/Hydro Officer, of Duke on or about August 23, 2016. I noted to Mr. Repko that as discussed in prior meetings, Cube Hydro planned to self-certify three facilities as QFs (as discussed, that self-certification was filed in September 2016) and I requested further discussions with Duke regarding longer-term contracts

and pursuing a long-term PPA for all four facilities, including the Narrows plant. The long-term PPA would provide additional flexibility to Duke to manage its grid due to the continuing impact of solar generation on Duke's network. After being referred to Matt Palasek and finally Michael Keen, I informed them on August 26, 2016 that Cube Hydro desired to enter into a long-term PPA with Duke related to the three Cube QFs as well as the Narrows plant.

On or about September 16, 2016, I contacted Michael Keen to further discuss Duke's purchasing the output of the Cube QFs. By responsive letter dated September 21, 2016 (Exhibit 1), Michael Keen, acknowledged that Cube Yadkin was committed to sell the power from QFs by noting that Duke did not have any current needs and that "to the extent that Cube Yadkin approached Duke under PURPA... Duke would likely have no obligation to purchase any output of energy or capacity from that Yadkin system that may be certified as qualified facilities." Mr. Keen did not say why Duke would be exempt from its PURPA obligations, but this statement is contrary to PURPA, as the obligation to purchase energy is mandated by PURPA and Duke was not eligible for any of the recognized exemptions to that obligation. In his September 16 letter, Mr. Keen acknowledged that Cube did not yet own the Cube QFs, but was scheduled to close on the purchase transaction around November 1, 2016. Mr. Keen did not indicate in his letter that this state of affairs would be an impediment to PPA negotiations, and his response indicates Duke's understanding that Cube was authorized to negotiate on behalf of the Cube QFs.

By letter sent to Duke on or about October 11 (**Exhibit 2**), I responded that the QFs were self-certified with FERC and that Cube Hydro wanted to meet to discuss the process for making sales from the projects to Duke pursuant to PURPA. Surprisingly, Michael Keen responded in a letter on October 14, 2016 (**Exhibit 3**), stating that if the QFs are qualifying facilities that seek to sell power to Duke, Duke believed that it would be exempted from the purchase obligations "under

292.309/310." Presumably this was a reference to FERC's regulations at 18 C.F.R. § 292.309-310, which establish a procedure under which a utility may petition FERC for an order exempting it from its obligation to purchase power QFs that have nondiscriminatory access to wholesale markets that meet specified criteria. However, Duke had never filed such a petition, and the Cube QFs lacked the kind of market access required in the rules, and so Duke's response appeared to be another effort to stall PPA negotiations. In its October 14 letter, Duke also asserted for the first time that because Cube was under contract to purchase the QFs, but had not yet closed on them, "Cube Hydro has no potential rights to exert under PURPA." Duke did not state any legal or factual basis for its claim that Cube could not negotiate a PURPA contract on behalf of the Cube

During these discussions between Duke and Cube Hydro, Duke never mentioned the NoC form nor did it mention any expected requirements for a CPCN. Further, Cube Hydro was unaware of any of its facilities, or other existing hydroelectric facilities, that would require the use of the NoC form or a CPCN.

OFs.

- Q. PLEASE DESCRIBE THE NEGOTIATIONS BETWEEN COMPLAINANT AND RESPONDENTS FOR THE PURCHASE OF THE CUBE QFS' OUTPUT AFTER THE DISCUSSIONS IN OCTOBER 2016.
- A. Cube Yadkin, through Cube Hydro, believed that it had established a LEO for each of the three Cube QFs and was entitled to sell their output to Duke under PURPA. Nevertheless, given Duke's refusal to purchase from the Cube QFs under PURPA, Cube Yadkin was open to continuing to have further discussions with Duke because it would be advantageous to sell power from all four of the Yadkin facilities to Duke under long term PPAs. Cube Yadkin's openness was driven by the relative strength of bargaining positions between it and Duke. As a monopoly, Duke

has considerable bargaining power when it comes to Cube Yadkin's pursuit of a longer term PPA. The best chance for Cube Yadkin to negotiate with Duke was to find some common ground through a non-PURPA PPA that would incorporate all four of the facilities purchased from Alcoa and to focus on the PURPA PPA Cube Yadkin was entitled to at a later date. At no time, however, did Cube Yadkin waive its right to a PURPA PPA. Accordingly, Cube Yadkin sought to explore such an alternative. In November 2016, Cube Hydro and Duke began conversations about a potential, alternative approach for Duke to purchase the power from the all four facilities, including the Cube QFs, on a non-PURPA basis. Such a PPA would be beneficial to Duke and its ratepayers, and would diversify the power grid in a manner consistent with goals of the State of North

Carolina.

As it had done before, Duke drew out the negotiations on a non-PURPA PPA through requiring confidentiality agreements and demanding, as a precondition to any negotiations, that Cube sign an agreement stating that such subsequent negotiations would not, on their own, give rise to any rights under PURPA. The letter agreement, dated April 25, 2017 (Exhibit 4), acknowledged that Cube Hydro and Duke would enter into non-PURPA discussions. However, in the letter agreement Cube did not waive its existing rights under PURPA, which had arisen during the discussions in the spring, summer, and fall of 2016, when Cube Hydro committed to sell the output of the Cube QFs to Duke.

Q. WHEN DID COMPLAINANT ESTABLISH ITS LEO?

A. The Cube QFs' LEOs were established as early as March 2016, when Cube Hydro sought to interface with Duke concerning the potential for a long-term PPA. At that point, Cube Hydro notified Duke of its intention to commit to sell the Cube QFs' output to Duke at avoided cost rates pursuant to PURPA. These discussions continued throughout the spring and summer of

2016. By emails between August 23 and August 26, 2016 (Exhibit 5), I again put Duke on notice that Cube Hydro was committed to sell its power to Duke, as I expressly stated that Cube Hydro was seeking long-term PPAs. Further, during direct communications on or about September 16, 2016, I communicated Cube Yadkin's commitment to sell the output of the QFs to Duke. (Exhibit 1). Additionally, on September 28, 2016, Cube Yadkin filed Form 556's for the QFs, further establishing a commitment to sell the power to Duke. Finally, by letter served on Duke on October 11, 2016 (Exhibit 2), I explicitly stated that Cube Yadkin wanted to discuss the process of making sales from the QFs pursuant to PURPA and this was acknowledged in Duke's October 14, 2016 response (Exhibit 3). Accordingly, Cube QFs' LEOs were established as early as March 2016, but no later than October 11, 2016.

Q. WHY DID COMPLAINANT NOT COMPLETE THE NOC FORM?

A. As an initial matter, the NoC form could not be completed in its entirety by Cube Yadkin based on the very terms of the form. The NoC form required Cube Yadkin to make certifications which it could not or was not required to make. Specifically, section 3 required Cube Yadkin to certify that it had either received (or would apply for) a CPCN for the QFs, or was exempt from the CPCN requirement pursuant to N.C. Gen. Stat. § 62-110.1(g) and had filed or would file a report of proposed construction. A CPCN was not required for the Cube QFs because these facilities pre-dated the CPCN statutory requirements, as discussed above. The remaining sections presuppose that section 3 was completed. It would be impossible for Cube Yadkin to complete this form as written. Furthermore, throughout the course of PPA negotiations, Duke never requested that Cube Yadkin complete the NoC form or indicated that a NoC form would need to be completed in order to establish a LEO or enter into a PPA. A reasonable review of the

- specific facts associated with the Yadkin QFs and the requirements of the NOC form fully support
- ² Cube Yadkin's decision not to file the NOC form.

Q. WHY WOULD IT BE APPROPRIATE FOR THE COMMISSION TO WAIVE THE NOC FORM REQUIREMENT AS TO THE CUBE QF'S?

A. There are several reasons that a waiver would be appropriate. First, as discussed above, Cube Yadkin proceeded reasonably and in good faith in not filing the NoC form because it had reason to believe the Commission would not require a NoC form since the Cube QFs were in full operation and pre-dated NoC requirements. Second, this was (at most) a technical deficiency that did not cause harm or prejudice to any party. Duke was fully on notice of Cube's commitment to sell the output of the Cube QFs based on the negotiations with Cube that started in March 2016 and continued through November 2016. Finally, Cube submits that *not* granting the requested waiver would in effect reward Duke for its efforts to try to evade its PURPA obligations, first by making frivolous arguments that it was exempt from its PURPA obligations as to Cube, and then by dragging out PPA negotiations through the fall of 2016.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

16 A. Yes.

Exhibit 1

Docket No. E-7, Sub 1172

Docket No. E-2, Sub 1177



Duke Energy 299 First Avenue North St. Petersburg, FL 33701

September 21, 2016

Cube Hydro Partners Two Bethesda Metro Center, Suite 1330 Bethesda, MD 20814

Attn: John R. Collins

Executive Vice President and Managing Director – Business Development

Re: Inquiry concerning sale of output of Yadkin system to Duke Energy

Dear John:

This letter is a follow up to our conversation of September 16, 2016 during which I communicated to you Duke Energy Progress, LLC and Duke Energy Carolinas, LLC's (collectively/individually, "Duke") positions in response to your inquiry soliciting Duke's interest in purchasing the output of the Yadkin system. The "Yadkin System" consists of four hydro-electric units as follows: High Rock Station, approximately 33 MW; Tuckertown Station, approximately 39 MW; Falls Station, approximately 30 MW; and Narrows Station, approximately 119 MW.

The Yadkin system is currently owned and operated by Alcoa Inc., and is the subject of a potential purchase by Cube Yadkin Generation, LLC ("Cube Yadkin"). You informed me that Cube Yadkin does not currently own or operate the Yadkin system, but anticipates that it will close on the transaction to own and operate the facilities around November 1, 2016. As I communicated to you previously, Duke does not have any current needs for energy or capacity; however, if a need arises in the future, Duke would likely issue a request for proposals and Cube Yadkin can elect to submit a responsive bid. You further informed me that Cube Yadkin is considering certifying the three smaller units as qualifying facilities under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). In that regard, I informed you that to the extent Cube Yadkin approached Duke under PURPA, that under PURPA's requirements, Duke would likely have no obligation to purchase any output of energy or capacity from the Yadkin system units that may be certified as qualified facilities.

Please feel free to contact me with any questions.

Sincerely,

Michael Keen

Business Development Manager

Duke Energy

Exhibit 2

Docket No. E-7, Sub 1172

Docket No. E-2, Sub 1177



Michael Keen Business Development Manager Duke Energy 299 First Avenue North St. Petersburg, FL 33701

Dear Michael,

I am writing in response to your letter dated September 21, 2016 (the "September 21 Letter") regarding the discussions between Duke Energy Progress, LLC and Duke Energy Carolinas, LLC (individually and together, "Duke"), and Cube Hydro Partners, LLC ("Cube Hydro") with respect to the four hydroelectric projects on the Yadkin River (collectively, the "Yadkin Projects") that are currently owned by Alcoa Power Generating Inc. ("Alcoa").

As we discussed, Cube Hydro Carolinas LLC, an affiliate of Cube Hydro, has agreed to acquire the Yadkin Projects from Alcoa. The acquisition is anticipated to occur before the end of 2016. Alcoa has certified three of the four Yadkin Projects – the approximately 30 MW Falls project, the approximately 40 MW Tuckertown project, and the approximately 34 MW High Rock project – as qualifying small power production facilities ("QFs") under the Public Utility Regulatory Policies Act of 1978 ("PURPA") and the implementing regulations of the Federal Energy Regulatory Commission ("FERC").

As you may know, Section 210(m) of PURPA and FERC's regulations require electric utilities, including Duke, to purchase energy and capacity made available from QFs. See 16 U.S.C. § 824a-3(a)(2) (2012); 18 C.F.R. § 292.303(a) (2016). FERC's regulations further specify that a QF shall have the option of making sales to an electric utility pursuant to a legally enforceable obligation, or on an "as available" basis. See 18 C.F.R. § 292.304(d) (2016).

Given that three of the Yadkin Projects are now QFs, we recommend that we meet to discuss your concerns at your earliest convenience. We are happy to come to your offices in late October or early November to discuss the process for making sales from these projects to Duke pursuant to PURPA. We would anticipate that such discussions would, among other things, address the statement in the September 21 Letter that, "under PURPA's requirements, Duke would likely have no obligation to purchase any output of energy or capacity from the Yadkin system units that may be certified as [QFs]." While electric utilities may petition FERC to be relieved of their mandatory purchase obligations under PURPA, it does not appear that FERC has issued an order relieving Duke of such obligations, or that there are any other applicable exceptions or exemptions.

Thank you for your attention to this matter. We'll be contacting your office to find a mutually agreeable date to meet at your offices.

Sincerely,

John R. Collins
Executive Vice President and Managing Director - Business

Development

Kristina Johnson Cc:

Dhiaa M. Jamil

Exhibit 3

Docket No. E-7, Sub 1172

Docket No. E-2, Sub 1177

Duke Energy 299 First Avenue North St. Petersburg, FL 33701



October 14, 2016

Via Email and Priority Mail

Mr. John R. Collins
Executive Vice President and Managing Director – Business Development
Cube Hydro Partners, LLC
Two Bethesda Metro Center, Suite 1330
Bethesda, MD 20814

Re: Response to Undated Cube Hydro Letter Received October 11, 2016

Dear John:

This letter is a follow up to your undated letter to Duke Energy Carolinas, LLC and Duke Energy Progress, LLC ("Duke") which was received on October 11, 2016 (the "Cube letter").

In the Cube letter you inform Duke, as Cube Hydro Partners LLC, on behalf of Cube Hydro Carolinas, LLC (collectively, "Cube Hydro"), that Alcoa Power Generation, Inc. ("Alcoa") has certified three out of four units of the Yadkin system as qualifying facilities under PURPA. The "Yadkin system" consists of four hydro-electric units, as follows: High Rock Station, approximately 33 MW; Tuckertown Station, approximately 39 MW; Falls Station, approximately 30 MWs; and, Narrows Station, approximately 119 MW. You further inform us that Cube Hydro seeks to purchase the Yadkin system from Alcoa, and may be the actual owner and operator of the Yadkin system by the end of 2016. At this time, Cube Hydro neither owns nor is a qualifying facility with respect to the Yadkin system. Therefore, Cube Hydro has no potential rights to exert under PURPA. Although your letter fails to reference our discussions, we have previously and prior to your letter informed you of the PURPA provisions under which Duke would be exempted from PURPA with regard to the Yadkin system. Accordingly, this letter serves as Duke's formal notice under 292.309/310 that if in the future Cube Hydro is a qualifying facility with respect to the Yadkin system and it seeks to sell power to Duke, it is Duke's view that it is exempted from any purchase obligation under PURPA with respect to the Yadkin system.

Representations and warranties in applications made at FERC demonstrate that Cube Hydro has sought, and Alcoa currently has market-based rate authority on the basis of the ability and history of selling the output of the Yadkin system into competitive wholesale and organized markets. However, after you have closed on the transaction with Alcoa, if you seek to approach Duke under PURPA we will be glad to discuss this matter further.

Sincerely,

Michael Keen

Business Developer Manager, Duke Energy