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Clerk's Office  
N.C. Utilities Commission

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION  
DOCKET NO. E-100, SUB 101

In the Matter of:	)	
Adoption, if Appropriate, of	)	
Modifications to Interconnection	)	REPLY COMMENTS
Standards to Reflect Recent	)	
Improvements Expressed	)	
in FERC Order No. 792	)	

NCSEA'S REPLY COMMENTS

On 8 April 2014, North Carolina Sustainable Energy Association ("NCSEA") filed a *Petition to Modify Interconnection Procedures in Response to FERC Order No. 792 and to Consider Other Related Matters* in this docket. On 11 April 2014, the North Carolina Utilities Commission ("Commission") issued an *Order Requesting Discussion and Comments* in which the Commission set a filing deadline for initial comments and reply comments. The filing deadlines were extended several times. On 21 November 2014, parties filed initial comments. Initial comments were filed by Duke Energy Carolinas, LLC, Duke Energy Progress, Inc., and Dominion North Carolina Power (collectively "Utilities"), Ecoplexus Inc. ("Ecoplexus"), the Interstate Renewable Energy Council, Inc. ("IREC"), the Public Staff, and NCSEA. Pursuant to the Commission's 11 April 2014 order (as modified by the Commission's 17 December 2014 *Order Granting Fifth Extension of Time to File Comments*), NCSEA files these reply comments to respond to various parties' initial comments.<sup>1</sup>

NCSEA shared a draft of these reply comments with the parties on 11 December 2014. The Utilities provided feedback. In an effort to capture this feedback, where

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<sup>1</sup>Absent an express reply herein to a party's specific proposal, NCSEA refers the Commission to NCSEA's *Initial Comments* and Attachment A thereto for NCSEA's position on the matter.

applicable and appropriate, NCSEA has summarized the Utilities' feedback (recognizing that the Utilities' reply comments will fully set out the Utilities' positions on various matters).

### **The Utilities' Comments**

NCSEA *generally* believes the Utilities' proposed interconnection *procedures* (not to be confused with the *forms* and *agreements* attached to the proposed procedures) that were attached to their *Initial Comments* are reflective of the stakeholder process and the consensus that was achieved between the Utilities and NCSEA during that process. There were, however, issues where consensus could not be reached and so the Utilities' *Initial Comments* merit an express NCSEA reply in connection with these non-consensus issues. The non-consensus issues, the proposed language at involved (if applicable), and NCSEA's comments and recommendations are set out below.

#### 1. *Proposed section 1.1.3: Applicability of the revised standard*

Section 1.1.3 of both the Utilities' and NCSEA's proposed interconnection procedures is intended to explain the applicability of the new procedures to projects, including projects that have already been interconnected. The Utilities and NCSEA were not able to agree on specific language and have proposed slightly different language for use in the first paragraph of their proposed Sections 1.1.3. The Utilities' proposed language along with NCSEA's alternative proposed language (initially filed in Attachment A to NCSEA's *Initial Comments*) is set out in the text boxes below.

Utilities' Proposed Section 1.1.3, ¶1	NCSEA's Proposed Section 1.1.3, ¶1
<p>The 2015 revisions to the Commission's interconnection standard shall not apply to Generating Facilities already interconnected as of the effective date of the 2015 revisions to this Standard, unless the Interconnection Customer proposes a Material Modification, <u>transfers ownership of the Generating Facility</u>, or application of the 2015 revisions to the Commission's interconnection standard are agreed to in writing by the Utility and the Interconnection Customer. This Standard shall apply if the Interconnection Customer has not actually interconnected the Generating Facility as of the effective date of the 2015 revisions.</p>	<p>The 2015 revisions to the Commission's interconnection standard shall not apply to Generating Facilities already interconnected as of the effective date of the 2015 revisions to this Standard, unless the Interconnection Customer associated with such a Generating Facility proposes any Material Modification after such date or applicability of the 2015 revision is so agreed to by the Utility and the Interconnection Customer. <u>Additionally, Section 6.11 shall apply where a Generating Facility already interconnected transfers ownership of the Generating Facility after the effective date of the 2015 revisions to this Standard.</u> This Standard shall apply if the Interconnection Customer has not actually interconnected the Generating Facility as of the effective date of the 2015 revisions.</p>

The underlined portions of the proposals submitted by the Utilities (above left) and NCSEA (above right) both pertain to applicability of the revised standard to generating facilities that are already interconnected as of the effective date of the revised language and that are subsequently transferred to a new owner. During discussions between the Utilities and a number of NCSEA's members, the Utilities expressed a preference for their general language. NCSEA's members asserted that, if there were to be any reference to transfer of ownership in Section 1.1.3, the paragraph should specifically cite to Section 6.11 of the procedures – the section that controls transfer of ownership of interconnected facilities.

To be clear, the Utilities and NCSEA have proposed identical language for Section 6.11 of the procedures. As far as Section 6.11 goes, there is no disagreement about the procedure applicable to transfers of ownership of interconnected facilities.

Section 6.11 is entitled “Sale of a Generation Facility” and contains subsections 6.11.1, 6.11.2, and 6.11.3. The three subsections, taken together, cover the sale/transfer of an interconnected facility and one of the subsections – 6.11.2 – expressly states that “[e]xisting Interconnection Agreements are non-transferable.”<sup>2</sup>

NCSEA members’ key concern with the Utilities’ proposed Section 1.1.3 language is that it does not specify which portions of the 2015 revisions to the interconnection standard – beyond Section 6.11, if any – would apply to already interconnected generating facilities in the case of transfer of ownership. Transferring ownership of a project can be part of the regular process of doing business. The imprecise language in the Utilities’ proposal makes it unclear whether already interconnected projects that are transferred to a new owner might somehow, for example, become subject to new technical reviews even though the facility’s technology has changed at all.

NCSEA believes the general reference to transfer of ownership in the Utilities’ proposed Section 1.1.3 is unnecessary and, if approved, will foster confusion. NCSEA instead recommends that the Commission either (a) adopt language substantially similar to NCSEA’s proposed language (above right), including a specific reference to Section 6.11, or (b) omit all reference to transfer of ownership in Section 1.1.3.

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<sup>2</sup> On the “non-transferability” point, it is worth noting that the Utilities’ and NCSEA’s proposed Section 6.11 is consistent with, though not identical to, Section 5.11 in the existing North Carolina interconnection procedures.

## 2. Proposed section 1.5: Material modification

Section 1.5 of both the Utilities' and NCSEA's proposed interconnection procedures is designed to provide greater definitional and procedural clarity where a developer proposes to modify a facility. Under the existing North Carolina interconnection procedures, a proposed modification that is "material" enough to essentially transform the originally proposed project into a "new" project (from a feasibility/system impact/facilities study perspective) can result in loss of queue position. Given the potential for loss of queue position, a number of NCSEA's members desired greater clarity as to how the Utilities would evaluate whether a modification is material or not. Accordingly, during the stakeholder process, the stakeholders discussed

[d]efining as clearly as possible what modifications to an interconnection request would constitute a "material" modification and, therefore, cause such a request to be considered to have been withdrawn[.]

Public Staff's *Initial Comments* at p. 6. Ultimately, NCSEA supports the Utilities' proposed Section 1.5 with the exception of the Utilities' inclusion of the word "direct" in the definition of Material Modification (see text box below).

**Utilities' Proposed Sections 1.5.1.2 and 1.5.2.2, and Utilities'  
Proposed Glossary Definition of "Material Modification"**

1.5.1 Indicia of a Material Modification include, but are not limited to:

...

1.5.1.2 A change or replacement of generating equipment such as generator(s), inverter(s), transformers, relaying, controls, etc. that is not a direct substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request;

...

1.5.2 The following are not indicia of a Material Modification:

...

1.5.2.2 A change or replacement of generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. that is a direct substitution in size, ratings, impedances, efficiencies or capabilities of the equipment specified in the original or preceding Interconnection Request[.]

Note: Language identical to that set out above (less the section numbers) is included in the Utilities' proposed Glossary definition of "Material Modification."

The stakeholder group spent a considerable amount of time developing a revised definition for "Material Modification." While there does in fact appear to be "substantial consensus" on the definition, *see* Public Staff's *Initial Comments* at p. 14, the Utilities and a number of NCSEA's members were not able to agree to the Utilities' proposed use of the word "direct" in the subsections set out in the text box above.

NCSEA's members are concerned that "direct" could be construed as a synonym for "identical." Developers indicated that, with the current long delays caused by the clogged queues, equipment initially specified in their interconnection requests has become and might continue to become unavailable and that the only replacement equipment available is/might be similar but not exactly the same as the equipment initially specified. Developers expressed concern that "direct" might be construed in too restrictive a manner given the realities of equipment availability/unavailability.

During one of the discussions, a Public Staff member questioned whether developers would prefer use of the phrase “like-kind” instead of the word “direct.” After consideration, a number of NCSEA’s members came to prefer use of the suggested phrase “like-kind” in place of “direct.” For the foregoing reason, NCSEA recommends “like-kind” be substituted in for “direct” in the Utilities’ proposed Section 1.5 and in the Utilities’ proposed Glossary definition of Material Modification; NCSEA otherwise supports and agrees with the Utilities’ proposed Section 1.5.<sup>3</sup>

3. Proposed section 1.8.2.1: A single study report for Project Bs

The Utilities’ proposed Section 4.3.6 provides as follows:

If the Utility has determined that an Interdependency exists and the Project is designated as a Project B, the Project B Interconnection Request shall receive a System Impact Study report, addressing a scenario assuming Project A is constructed and a second scenario assuming Project A is not constructed.

NCSEA supports adoption of the Utilities’ proposed Section 4.3.6.

As proposed, Section 4.3.6 clearly contemplates that a Project B will receive one system impact study report that covers two scenario analyses. NCSEA recommends that the Utilities’ proposed Section 1.8.2.1, which currently contemplates two study reports, be revised to conform to the single study report concept. The Utilities’ proposed Section 1.8.2.1 and NCSEA’s alternate proposed Section 1.8.2.1 are set out in the text boxes below.

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<sup>3</sup> Even with this revised, more granular definition of “Material Modification,” NCSEA believes that *how* the Utilities administer the definition is going to be critically important. In an effort to ensure uniform, non-discriminatory administration, NCSEA recommended in its *Initial Comments* – at page 8 (including footnote 9) – that the Utilities report on their administration of this definition in any ongoing reports that they are required to file in the future. NCSEA continues to make this recommendation.

Utilities' Proposed Section 1.8.2.1	NCSEA's Proposed Redline of Utilities' Proposed Section 1.8.2.1
<p>Following the Section 4.2 Scoping Meeting and execution of the System Impact Study Agreement, the Project B shall proceed to the Section 4.3 System Impact Study process. Project B shall receive a System Impact Study report that assumes the interdependent Project A Interconnect Request with the lower Queue Number completes construction and interconnection and another System Impact Study report that assumes the interdependent Project A Interconnect Request with the lower Queue Number is not constructed and is withdrawn.</p>	<p>Following the Section 4.2 Scoping Meeting and execution of the System Impact Study Agreement, the Project B shall proceed to the Section 4.3 System Impact Study process. Project B shall receive a System Impact Study report <u>analyzing two scenarios, one</u> that assumes the interdependent Project A Interconnect Request with a lower Queue Number completes construction and interconnection and <del>another System Impact Study report</del> <u>one</u> that assumes the interdependent Project A Interconnect Request with the lower Queue Number is not constructed and is withdrawn.</p>

NCSEA's proposed language conforms to the single study report concept and NCSEA therefore recommends that its proposed Section 1.8.2.1 be approved.

4. Proposed section 4.4.1: Monitoring the interconnection experiences of non-solar developers

The Utilities' proposed Section 4.4.1, pertaining to initiation of the facilities study, provides as follows:

A solar Interconnection Customer must request a Facilities Study by returning the signed Facilities Study Agreement within 60 Calendar Days of the date the Facilities Study Agreement was provided. Any other Interconnection Customer must request a Facility Study by returning the signed Facilities Study Agreement within 365 Calendar Days of the date the Facilities Study Agreement was provided. Failure to return the signed Facilities Study Agreement within the foregoing applicable time period will result in the Interconnection Request being deemed withdrawn.

NCSEA supports adoption of the Utilities' proposed Section 4.4.1, but wants to highlight for the Commission a unique feature of this section and use this feature to make a more general point.



To NCSEA's knowledge, proposed Section 4.4.1 is the only proposed procedural language that distinguishes between solar and non-solar projects. The derivation of this distinction in proposed Section 4.4.1 is worth explaining and may well have implications for how the Commission chooses to monitor the efficacy of any revised interconnection procedures. The stakeholder discussions saw significant participation from solar developers but negligible participation from non-solar developers (even among NCSEA's members). Without robust non-solar participation, the stakeholders had to use their best judgment as to how proposed changes might affect non-solar generating facilities. Proposed Section 4.4.1's 365-day turn-around time for non-solar facilities versus the 60-day turn-around time for solar facilities is a reflection of the stakeholders' use of their best collective judgment. To wit, the stakeholders believed they had enough solar developer input to agree to a quick 60-day turn-around time for solar projects but were uncertain that non-solar developers – who can have to deal with additional complexities, such as securing air permits and feedstock agreements – could realistically be expected to comply with such a turn-around time. To avoid prejudicing non-solar developers by imposing an unrealistic turn-around time, the stakeholders decided to propose a 365-day turn-around time, believing that it be better to err on the side of a lengthier turn-around time that could be unilaterally curtailed by the developer than a shorter one that simply expelled the developer's project from the queue.<sup>4</sup>

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<sup>4</sup> NCSEA recognizes that non-solar developers are an important part of the renewable energy ecosystem and advocated for this distinction in the standard to try to make sure that, in attempting to unclog the queues and streamline the processes, we did not inadvertently create an insurmountable hurdle or stumbling block for non-solar developers, particularly swine-waste and poultry-waste-to-energy developers whose projects are needed to ensure compliance with the REPS set-asides. NCSEA understands that the Utilities' may, in their reply comments, support IREC's proposal that the 365-day

Proposed Section 4.4.1 thus highlights that, even though the stakeholders worked in good faith, some of the proposed revisions are somewhat experimental and therefore *need* to be monitored and reviewed over the next several years to ensure that they are not inadvertently discriminating against or prejudicing any particular class of interconnection customer (*e.g.*, non-solar interconnection customers). NCSEA believes the limited involvement of non-solar developers is another reason to implement any revision on a “probationary” or “trial” basis, during which time the efficacy of the standard can be evaluated for all resources. For this reason, NCSEA reiterates its recommendations that the Commission (a) require reporting by the Utilities (such reporting will enable monitoring and hopefully early detection of any discriminatory or prejudicial impact), *see* NCSEA’s *Initial Comments* at pp.7-8, and (b) approve any revised interconnection procedures on a “probationary” or “trial” basis and commit to reviewing the efficacy of the revised procedures no later than one year after implementation, *see id.* at p. 9.

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turn-around time be reduced to 180 days. NCSEA continues to support the 365-day turn-around time for the reasons set out in the comments above.

5. Proposed section 5.2.4: "Pre-payment" for interconnection facilities and upgrades

As proposed by the Utilities and NCSEA, there are two key points in the revised interconnection process at which a deposit/"pre-payment"<sup>5</sup> will be required. First, proposed Section 1.4.1.2 of the interconnection procedures requires an upfront study deposit.<sup>6</sup> Second, proposed Section 5.2.4 of the interconnection procedures requires upfront payment or posting of financial security sufficient to cover the estimated costs of construction for interconnection facilities and upgrades. Both deposits/"pre-payments" are designed to securitize utility expenditures of time and money and to insulate ratepayers from having to cover any costs incurred by the utility that might not otherwise be paid for by a developer. These reply comments focus on proposed Section 5.2.4 (and related proposed sections).

To put proposed Section 5.2.4 in context, it is helpful to understand that interconnecting a generating facility to the grid often requires infrastructural improvements (a) between the generating facility and the point of interconnection to the grid,<sup>7</sup> and (b) to the utility's distribution system (*i.e.*, on the utility-side of the point of

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<sup>5</sup> "Pre-payment" may not be an entirely accurate term but it is a term that the stakeholders have used at times. *See, e.g.*, Article 6.1 of the Utilities' preliminary template Interconnection Agreement (referencing "the foregoing pre-payment charges").

<sup>6</sup> As set out in NCSEA's *Initial Comments* at pages 14-15, NCSEA not only supports this study deposit requirement, but NCSEA also recommends the requirement be approved by the Commission in an expedited interim order so that the decongestant effect that is expected to flow from the requirement can be initiated as quickly as possible. Needless to say, given NCSEA's support for the study deposit proposal, NCSEA cannot support Ecoplexus' proposal that North Carolina study deposits be handled in the same manner as federal SGIP study deposits. *See Ecoplexus' Initial Comments* at pp. 7-9. NCSEA notes, however, that Ecoplexus' proposal merits consideration in the event the Commission declines to adopt the Utilities' and NCSEA's proposed Section 1.4.1.2.

<sup>7</sup> The term of art for such improvements is "Interconnection Facilities," defined in the current interconnection procedures Glossary to mean: "Collectively, the Utility's

interconnection);<sup>8</sup> interconnecting a facility can also require infrastructural improvements to the utility's transmission system.<sup>9</sup> Each of these three types of infrastructural improvements costs money to build out and maintain and these improvements obviously need to be in place before a new generating facility is energized. For the utility to feel secure in building out the infrastructure, it wants financial assurances that the costs will be covered by the developer whose project necessitates the improvements. This financial assurance is necessary for the utility, in turn, to be able to provide greater assurance to other project developers about the system they can expect to interconnect to (including how their facilities may impact that system and what additional infrastructural improvements may be needed to accommodate their projects).<sup>10</sup> With this context, it is NCSEA's hope that the Commission will see the value of a "pre-payment" of the

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Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Utility's System. Interconnection Facilities are sole use facilities and shall not include Upgrades."

<sup>8</sup> The term of art for such improvements is "Distribution Upgrades," defined in the current interconnection procedures Glossary to mean: "The additions, modifications, and upgrades to the Utility's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the service necessary to allow the Generating Facility to operate in parallel with the Utility and to inject electricity onto the Utility's System. Distribution Upgrades do not include Interconnection Facilities."

<sup>9</sup> The term of art for such improvements is "Network Upgrades," defined in the current interconnection procedures Glossary to mean: "Additions, modifications, and upgrades to the Utility's Transmission System required to accommodate the interconnection of the Generating Facility to the Utility's System. Network Upgrades do not include Distribution Upgrades."

<sup>10</sup> See, e.g., Utilities' proposed Section 1.8.3.1, which indicates that "a lower Queue Number project signing an Interconnection Agreement and making payments required in Section 5.2.4" can result in "the removal of interdependency" between projects and thus permit projects with higher queue numbers to be studied, beginning their movement through the interconnection study process.

estimated costs of the infrastructural improvements not only to a utility and its ratepayers but also to developers of projects with higher queue numbers.

Currently, a number of the details about how “pre-payment” of these costs will work under a revised set of procedures have yet to be fleshed out because these payments have traditionally been addressed in much greater detail in the interconnection agreement itself (*see, e.g.*, Articles 4, 5, and 6 of the current template North Carolina interconnection agreement) or in an appendix to the interconnection agreement (*see, e.g.*, Appendices 2, 3, and 6 to the current template North Carolina interconnection agreement). As a number of parties have noted, the stakeholder discussions focused on the interconnection procedures and not on the forms and agreements attached thereto. *See, e.g.*, Utilities’ *Initial Comments* at pp. 24-25; NCSEA’s *Initial Comments* at p. 6; Public Staff’s *Initial Comments* at p. 19. NCSEA notes this here because it believes certain “bones” do need to be incorporated into the interconnection procedures upon which the stakeholders can hang “flesh” when they turn to the forms and agreements, particularly the template interconnection agreement. For more on NCSEA’s recommendation that the stakeholders be permitted an opportunity to hang “flesh” on the “bones” of any Commission-approved procedures, see NCSEA Reply Comment No. 7 below.

As to the “bones” needed at this point, NCSEA would draw the Commission’s attention to the Utilities’ proposed Sections 1.1.3 (§3), 5.2.1, and 5.2.4. The relevant portions of these three sections, as proposed by the Utilities, are set out in the text box below left (on page 14). NCSEA supports adoption of the Utilities’ proposed Sections 1.1.3 and 5.2.1. NCSEA notes, however, that the Utilities’ proposed Section 5.2.1 appears to clarify that the upfront payment or posting of financial security will serve as a

kind of deposit which will be drawn upon according to the “payment schedule” expressly required by proposed Section 5.2.1. *See* proposed Section 5.2.4 (“The Final Interconnection Agreement shall specify *milestones for payment and financial security* that are required prior to the start of design and construction of Upgrades and Interconnection Facilities.”) (emphasis added).

While NCSEA supports adoption of the Utilities’ proposed Sections 1.1.3 (¶3) and 5.2.1, NCSEA believes the Utilities’ proposed Section 5.2.4 needs to be revised as set out in the text box below right and that a definition of “Financial Security” needs to be inserted into the procedures Glossary – NCSEA’s proposed definition, drawn from language currently found in Article 6.3 of the template North Carolina interconnection agreement, is also set out in the text box below right.

**Utilities' Proposed Sections 1.1.3, ¶13,  
5.2.1, and 5.2.4**

1.1.3 ...  
Any Interconnection Customer that has executed an interconnection agreement with the Utility prior to the effective date of this Standard but the Utility has not actually interconnected the Generating Facility, shall have 60 Calendar Days to submit Upgrade payments required pursuant to Section 5.2. ...

...  
5.2.1 Within fifteen (15) Business Days of the Construction Planning Meeting, the Utility shall provide an executable Final Interconnection Agreement containing the Detailed Estimated Upgrade Charges, Detailed Estimated Interconnection Facility Charge, Appendix 4 (Construction Milestone and payment schedule listing tasks, dates and the party responsible for completing each task), and other appropriate information, requirements, and charges. ...

...  
5.2.4 The Final Interconnection Agreement shall specify milestones for payment and financial security that are required prior to the start of design and construction of Upgrades and Interconnection Facilities. Payment and Financial Security must be received by close of business sixty (60) Calendar Days after the date the Interconnection Agreement is delivered to the Interconnection Customer for signature, where failure to comply results in the Interconnection Request being deemed withdrawn.

**NCSEA's Proposed Redline of Utilities'  
Proposed Section 5.2.4 and NCSEA's  
Proposed Glossary Definition of  
"Financial Security"**

5.2.4 The Final Interconnection Agreement shall specify milestones for payment and and/or provision of any ~~Financial~~ ~~Security~~ that is ~~are~~ required prior to the start of design and construction of Upgrades and Interconnection Facilities. Payment and and/or Financial Security must be received by close of business sixty (60) Calendar Days after the date the Interconnection Agreement is delivered to the Interconnection Customer for signature, where failure to comply results in the Interconnection Request being deemed withdrawn.

Financial Security – A letter of credit or other financial arrangement that is both (a) reasonably acceptable to the Utility and (b) consistent with the Uniform Commercial Code of North Carolina (N.C. Gen. Stat. Chapter 25). Such letter of credit or other qualifying financial arrangement shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Utility's Interconnection Facilities and Upgrades. In lieu of a letter of credit or other qualifying financial arrangement, the Utility may deem Financial Security to exist where its credit policies show that the financial risks involved are de minimus or where the Utility's policies allow the acceptance of an alternate showing of credit-worthiness from the Interconnection Customer.

NCSEA understands the Utilities, in their reply comments, will support revised Section 1.1.3 and Section 5.2.4 language as well as inclusion of a Glossary definition of “Financial Security.” NCSEA also understands, though, that the Utilities’ revised proposal for Section 5.2.4 and their proposed definition of “Financial Security” will differ from what NCSEA proposed above. NCSEA continues to support the language it has proposed, but is willing to continue discussing how best to balance the needs of the Utilities and developers with regard to paying for/securitizing the build out of interconnection facilities and upgrades.

6. Proposed section 6.1: “Reasonable” efforts versus “best” efforts

The Utilities’ proposed Section 6.1 and NCSEA’s alternate proposed Section 6.1 are set out in the text boxes below:

Utilities’ Proposed Section 6.1	NCSEA’s Proposed Redline of Utilities’ Proposed Section 6.1
<p>6.1 Reasonable Efforts</p> <p>The Utility shall make reasonable efforts to meet all time frames provided in these procedures unless the Utility and the Interconnection Customer agree to a different schedule. If the Utility cannot meet a deadline provided herein, it shall at its earliest opportunity notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.</p>	<p>6.1 Reasonable Efforts <u>Delivery Timelines</u></p> <p>The Utility shall make <u>best</u> <del>reasonable</del> efforts to meet all time frames provided in these procedures, <del>unless the Utility and the Interconnection Customer agree to a different schedule.</del> If the Utility cannot meet a deadline provided herein, it shall at its earliest opportunity notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.</p>

NCSEA’s alternate proposal makes two changes to the Utilities’ proposal.

First, NCSEA’s proposal incorporates an expectation that the Utilities will make “best” efforts (instead of simply “reasonable” efforts) to meet all deadlines set out in the



revised interconnection procedures.<sup>11</sup> A number of NCSEA's members believe that, by their agreement to and support of the upfront study deposit and "prepayment" of construction provisions, they have "put skin in the game" and evidenced a commitment to improving the interconnection process; these same members would like to see the Utilities put similar skin in the game by committing to using enhanced "best" efforts to meet deadlines. Incorporation of such language into the interconnection procedures (together with other provisions agreed to by the Utilities and NCSEA) will incent the Utilities to do what they can to make sure Project As move through the interconnection process expeditiously, clearing the way for Project Bs to do the same thereafter.

NCSEA understands that the Utilities oppose incorporation of a "best" efforts standard. To the extent the Commission agrees with the Utilities' proposal calling for simple "reasonable" efforts, NCSEA reiterates its call for the Utilities to pay interest on deposits as an alternate method of incentivizing enhanced Utility efforts to unclog the queues and keep projects moving through their processes expeditiously. *See* NCSEA's *Initial Comments* at pp. 15-17.

NCSEA's alternate proposed Section 6.1 makes a second change to the Utilities' proposed language. NCSEA's proposed language eliminates the ability of the Utilities to agree with a developer to a different schedule of deadlines than that set out in the revised interconnection procedures. NCSEA believes that striking the offending language is consistent with a general "design" or "re-design" principal that was articulated by multiple stakeholders, specifically that deadlines would be set out with clarity and be enforceable. The Public Staff has articulated the clarity principal well: "A . . . key

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<sup>11</sup> This proposal was initially made by NCSEA in Attachment A to its *Initial Comments*.

concept is the establishment of clearly defined and enforceable due dates for each step of the process for both the utilities and the QFs.” Public Staff’s *Initial Comments* at p. 13. Because NCSEA and a number of NCSEA’s members are supporting the serial “Project A/Project B” approach to studies and because all the stakeholders acknowledged the interdependencies that exist between and among projects, NCSEA opposes language that would enable one utility and one developer to alter a single project’s deadlines in such a way that interdependent projects with higher queue numbers could be detrimentally impacted.

In sum, NCSEA’s proposed language creates utility “skin in the game” and better conforms to the clarity principal and NCSEA therefore recommends that its proposed Section 6.1 be approved.

7. Revising the forms and agreements attached to the interconnection procedures

At the conclusion of their initial comments, the Utilities state:

While substantial work has been done to develop the [Utilities’ proposed standard], the focus has primarily been on the procedures themselves, while less attention has been given to ensuring the forms and agreements attached thereto conform to the recommended procedures. The Utilities have committed to other parties to undertake a further review of these forms and agreements in the coming weeks, and to file an updated redline for the Commission’s consideration in its reply comments in this proceeding.

Utilities’ *Initial Comments* at pp. 24-25. Similarly, the Public Staff has indicated that

[v]ery little attention has been paid to date by the Public Staff to the agreements, forms, and other appendices because they ultimately will need to be conformed to the approved procedures. These will be addressed in reply comments.

Public Staff’s *Initial Comments* at p. 19.

NCSEA will note for the Commission that NCSEA is unaware of any formal or informal stakeholder meetings convened since 21 November 2014 to discuss further revision to the forms and agreements attached to the interconnection procedures. NCSEA is accordingly concerned that any proposals submitted by the Utilities or the Public Staff will be single-party proposals that will not reflect significant stakeholder input and to which there will be no formal opportunity to respond.

Ultimately, NCSEA does not believe it an efficient use of the parties' time and resources to revise the forms and agreements assuming that their particular proposed revisions will be adopted by the Commission. Instead, NCSEA reiterates its position – set out on pages 6-7 of its *Initial Comments* – that any Commission order approving revised interconnection procedures be accompanied by a direction that the stakeholders once again convene in an effort to identify and communicate to the Commission any revisions that should be made to the forms and agreements to make them conform to the new Commission-approved procedures.

#### 8. *Articulation of milestones in the model interconnection agreement*

The Utilities' proposed Section 5.1.3 provides:

The purpose of the Construction Planning Meeting is to identify the tasks for each party and discuss and determine the milestones for the construction of the Upgrades and Interconnection Facilities. Agreed upon milestones shall be specific as to scope of action, responsible party, and date of deliverable and shall be recorded in the Final Interconnection Agreement (see Appendix 4 to Attachment XX) to be provided to Interconnection Customer pursuant to Section 5.2.1 below.

NCSEA supports adoption of the Utilities' proposed Section 5.1.3.

During the stakeholder discussions, it became clear that the Utilities and developers have failed – in a number of currently executed interconnection agreements –

to articulate the development and construction milestones with sufficient detail to enable each party to hold the other accountable for keeping the post-interconnection agreement portion of the interconnection process flowing smoothly toward energization of a grid-tied facility. To be more pointed, NCSEA understands that some executed interconnection agreements contain blank milestone appendices or, if not blank appendices, contain appendices where the milestones are articulated very vaguely and have no real enforceable deadlines associated with them. An example of how vague the milestones can be in an interconnection agreement can be found in the text box below.

Example of Vague Milestones in an Interconnection Agreement		
Milestone		Responsible Party
1	Right-of-way / easement on the project site	Customer
2	Rights-of-way / easements outside the project site	Customer with the Company providing the requirements, route and legal documents
3	Interconnection Facilities	Customer & Company
4	System Upgrades	Company
5		
6		
7		
8		

The Utilities and NCSEA recognize the need for more specificity and thus propose Section 5.1.3 which requires milestones to “be specific as to scope of action,

responsible party, and date of deliverable[.]”<sup>12</sup> The Utilities and NCSEA have also initiated work on the template interconnection agreement and appendices thereto, all of which are attached – in preliminary form – to the proposed interconnection procedures that were filed on 21 November 2014. The Utilities and NCSEA agree that the revised “milestones table” – set out in Appendix 4 to the template interconnection agreement – should include a “completion date” column to conform to proposed Section 5.1.3 (*see* text box below) and that this will make significant strides toward remedying some of the current tail-end queue congestion problems.

**The Current State of the Utilities’ and NCSEA’s Proposed “Milestone Table”  
in Appendix 4 to the Template Interconnection Agreement  
(Which is Attached to the Interconnection Procedures)**

	Milestone	Completion Date	Responsible Party
(1)			
(2)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
(10)			

NCSEA believes, however, the stakeholders can further enhance the usefulness of the “milestones table” and ensure greater uniformity of process by pre-populating the

<sup>12</sup> *See* proposed Section 5.2.1 (referencing “Appendix 4 (Construction Milestone and payment schedule listing tasks, dates and the party responsible for completing each task)”); *see also* proposed Section 5.2.4 (“The Final Interconnection Agreement shall specify milestones for payment and financial security that are required prior to the start of design and construction of Upgrades and Interconnection Facilities.”).

table with certain ever-present milestones (at least for solar generating facilities).<sup>13</sup> Accordingly, consistent with NCSEA's Reply Comment No. 7 above, NCSEA recommends that any Commission order approving revised interconnection procedures be accompanied by a direction that the stakeholders once again convene in an effort to identify and communicate to the Commission any revisions that should be made to the forms and agreements to make them conform to the new Commission-approved procedures; NCSEA also recommends that any such re-convening focus on developing standard milestones for solar facilities that can be used to pre-populate the milestones table set out in Appendix 4 to the template interconnection agreement.

### **The Utilities' Anticipated Reply Comments**

It is NCSEA's understanding that the Utilities, in their reply comments, may request that the Commission approve certain provisions contained within their proposed procedures on an expedited basis. Specifically, NCSEA understands that the Utilities may ask the Commission to approve the proposed provisions covering (a) the upfront study deposit (primarily proposed Sections 1.1.3 and 1.4.1.2), (b) the revised definition of "Material Modification" (proposed Section 1.5 and related Glossary definition), and (c) the study of interdependent projects (primarily proposed Sections 1.8, 4.3 and 4.4 and related Glossary definitions).

As set out in NCSEA's *Initial Comments* at pages 14-15, NCSEA supports expedited Commission approval of the upfront study deposit requirement so that the

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<sup>13</sup> NCSEA recognizes that any list of pre-populated milestones may need to be supplemented with additional non-standard milestones for a given project and is not opposed to preservation of such flexibility.

decongestant effect that is expected to flow from the requirement can be initiated as quickly as possible. NCSEA would add at this point that expedited approval of this deposit must be accompanied by a sharing – by the Utilities – of sufficient queue information with developers so that developers can make informed decisions about whether to post a deposit. As to what information should be shared, see NCSEA’s *Initial Comments* at pages 7-8.

Beyond the upfront study deposit, NCSEA is not opposed to expedited approval of the proposed provisions dealing with the definition and application of “Material Modifications” (NCSEA believes the definition should incorporate the phrase “like kind” – see NCSEA Reply Comment No. 2 above) or expedited approval of the proposed provisions dealing with the study of interdependent projects.

### **Ecoplexus’ Comments**

Ecoplexus’ *Initial Comments* raised several issues that merit an express NCSEA reply. The issues, the proposed language at issue (if applicable), and NCSEA’s comments and recommendations are set out below.

#### **9. Adopting the federal standard**

Ecoplexus “strongly recommends that the Commission consider adopting the standards set forth in the federal SGIP, as well as the SGIA, when deliberating on the issues raised in this proceeding.” Ecoplexus’ *Initial Comments* at p. 4. While NCSEA appreciates the appeal of simply adopting the federal SGIP whole cloth, such action would not necessarily work to address the current clogged state of the North Carolina

queues or prevent continued clogging in the future. NCSEA therefore respectfully suggests that such an action is *not* appropriate.

As the Public Staff pointed out in its *Initial Comments*, the federal standards contained (and may well still contain) some of the “gaps” that have led to the current clogged state of North Carolina’s queues:

[T]he FERC focused upon requiring utilities to make reasonable efforts to meet specific time frames during the review process unless they and the generator agree to a different schedule. . . . As a result of this focus, the FERC did not include analogous time frames in every instance for the small generators to meet. When the Commission adopted the bulk of the FERC’s standard, the gaps in the deadlines for the generators came with it.

Public Staff’s *Initial Comments* at p. 8.

It is far from clear to NCSEA that the revised FERC standard has satisfactorily closed the “gaps” in the federal standard such that whole cloth importation of the federal SGIP into North Carolina would work to decongest the North Carolina queues. The Utilities and NCSEA have labored to identify the gaps and close them. For this reason, NCSEA believes that the Utilities’ and NCSEA’s proposals, where aligned, are more appropriate for adoption in North Carolina than the federal SGIP.

10. Proposed section 1.5: Material modification

Except for the Utilities’ proposed use of the word “direct,” the Utilities and NCSEA support the more robust definition of “Material Modification” that was developed through the stakeholder process and has been incorporated into proposed Section 1.5. NCSEA notes that this agreed-upon definition provides developers a significant degree of certainty that, for example, a change in ownership of a proposed facility does not constitute a material modification (*see* proposed Section 1.5.2.1) and that an increase in the DC/AC ratio that does not increase the maximum AC output capability



of the proposed facility does not constitute a material modification (see proposed Section 1.5.2.3). In the absence of the agreed-upon definition, no such level of certainty would exist.

Nonetheless, Ecoplexus asserts “the definition set forth in the SGIP and the SGIA provides a preferable alternative, in that it is less ambiguous and open to interpretation.” Ecoplexus’ *Initial Comments* at p. 9. As such, Ecoplexus appears to be advocating, essentially, for adoption of the federal language set out in the text box below.

**Ecoplexus’ Proposed Section 1.5 and Glossary Definition of “Material Modification”**

**1.5 Modification of the Interconnection Request**

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

(Quoting SGIP Section 1.4)

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

(Quoting definition set out in SGIP Glossary of Terms)

NCSEA and a number of its members perceive NCSEA’s proposed definition of “Material Modification” as an improvement on both the federal SGIP and the existing North Carolina definition. NCSEA respectfully disagrees with Ecoplexus’ assertion that the federal provision and definition quoted above is “less ambiguous and open to interpretation” than the more detailed definition agreed-to (mostly) by the Utilities and NCSEA (*see* NCSEA Reply Comment No. 2 above for NCSEA’s comments on a single point of disagreement). Accordingly, NCSEA recommends that the Commission approve

the definition of “Material Modification” that has been proposed by NCSEA and agreed-to (mostly) by the Utilities.

11. Eliminated section 1.6: Cluster study approach

Ecoplexus recommends that “the option of studying interconnection requests in clusters should be retained in the North Carolina Interconnection Standard, as it is in the [federal] SGIP.” Ecoplexus’ *Initial Comments* at p. 9. The Public Staff seems to have adopted a similar position, stating: “The Public Staff believes that using such cluster studies prospectively may be a valuable tool for handling [various] issues and should be considered, but that it would be inappropriate to impose cluster studies upon interconnection requests that are already pending without agreement of all of the affected proposed facilities in a proposed cluster.” Public Staff’s *Initial Comments* at p. 20.

Section 1.6 of the existing North Carolina interconnection procedures contains the following sentence: “At the Utility’s option, Interconnection Requests may be studied serially or in clusters for the purpose of the System Impact Study, should one be required.” The reference to “clusters” in the foregoing sentence is the only place in the existing North Carolina interconnection standard that a cluster approach to system impact studies is mentioned; nowhere in the existing standard are detailed procedures set out for conducting a cluster study. NCSEA believes the lack of detail is the primary reason that the proposals submitted by the Utilities and NCSEA have both eliminated the Section 1.6 sentence quoted above (together with its reference to the cluster approach). NCSEA continues to recommend removal of the quoted existing language.

For clarity’s sake, NCSEA is not categorically opposed to utility adoption of a cluster approach to system impact studies in the future. NCSEA understands that cluster

studies could provide the benefits touted by Ecoplexus and the Public Staff.<sup>14</sup> NCSEA also understands, however, that cluster studies – if poorly designed or implemented – can also fail to yield any benefits and could actually foster further congestion in the queues.<sup>15</sup>

On 8 April 2014, NCSEA filed its petition to re-open this docket. NCSEA's petition contained an exhibit which consisted of IREC's initial proposed redline of North Carolina existing interconnection procedures. On page 6 of that exhibit, in a comment "box" beside Section 1.6, IREC stated: "NC may want to consider creating a more formal group or cluster study process if there is a meaningful backlog in the serial study process." Despite this early "notification" that a more formal process would be needed to pursue cluster studies, no stakeholder or party has filed a proposed formal process that

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<sup>14</sup> Ecoplexus, for example, asserts that "[c]luster studies have the potential to expedite the time required to study, and complete, interconnection requests." Ecoplexus' *Initial Comments* at p. 9. Ecoplexus' statement may be based on Federal Energy Regulatory Commission ("FERC") statements. As noted by the Public Staff, the

FERC in its Order No. 2006 stated that the "clustering" of studies (i.e., grouping proposed facilities in the queue for purposes of studying their system impact and the effect the grouping has on the need for and the cost of required interconnection facilities) is its preferred approach. The FERC further stated that the clustering of studies allows the Transmission Provider to study multiple Interconnection Requests simultaneously, thereby maximizing the effectiveness of its staff and that clustering may also reduce interconnection study and upgrade costs because multiple interconnection customers can share the cost of upgrades.

Public Staff's *Initial Comments* at pp. 19-20.

<sup>15</sup> The stakeholders discussed cluster studies only briefly, but it quickly became clear that a cluster approach can be complicated and details would have to be worked out in advance such as (a) when is it appropriate to apply a cluster study approach to system impact, (b) how long would a call for "cluster" participants be held open, and (c) if a project is included in a cluster study and then withdraws (or is expelled) from the queue, would a re-study become necessary to determine the system impact of the "new" cluster and/or to reallocate the anticipated upgrade costs across the remaining cluster participants. The undersigned's limited discussions with IREC's counsel – who seemed to be the stakeholder most familiar with how cluster studies have been implemented in other jurisdictions – have led the undersigned to believe the details are incredibly important.

contains procedural details. NCSEA does not support affording a utility open-ended discretion to implement a cluster study approach that lacks procedural detail that has first been vetted by stakeholders and then approved by the Commission. Indeed, NCSEA believes affording a utility this type of discretion runs counter to some of the “design” or “re-design” principals that were shaping many of the stakeholders’ consensus proposals.<sup>16</sup> For these reasons, NCSEA is categorically opposed to retaining language in the interconnection procedures that permits a utility “at its option” to implement a process.

In the near-term, NCSEA believes the Utilities’ and NCSEA’s proposals requiring a serial “Project A/Project B” approach should be adopted. If the proposed serial approach proves inadequate, the Commission and stakeholders can re-convene in 6 months or a year and craft a clearly defined cluster study procedure for incorporation into the interconnection standard. (NCSEA understands the Utilities, in their reply comments, will generally support the foregoing approach.) Alternatively, NCSEA would not object to an interim Commission direction that, while the Commission considers the interconnection filings made to date, the stakeholders immediately re-convene and begin

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<sup>16</sup> NCSEA believes retention of the sentence permitting a utility to implement a currently-undefined cluster study approach “at its option” would violate what NCSEA perceived as two generally recognized “design” or “re-design” principals, namely the clarity principal and, relatedly, the minimization-of-utility-discretion principal. The Public Staff articulated the clarity principal: “A . . . key concept is the establishment of clearly defined and enforceable due dates for each step of the process for both the utilities and the QFs.” Public Staff’s *Initial Comments* at p. 13. Relatedly, there seemed to be a generally agreed-upon goal of eliminating as much utility discretion as possible with regard to unilateral altering of due dates and process flow. NCSEA believes preservation of utility discretion to conduct currently-undefined cluster studies runs contrary to these design/re-design principals and therefore should not be sanctioned by the Commission.

to craft a clearly defined cluster study procedure that can be presented to the Commission for review.

### IREC's Comments

IREC's *Initial Comments* raised several issues that merit an express NCSEA reply. The issues, the proposed language at issue (if applicable), and NCSEA's comments and recommendations are set out below.

#### 12. 20kW inverter process and fast track and supplemental review processes

As set out in NCSEA's *Initial Comments* on page 18, NCSEA supports IREC's proposed revisions to (i) the 20 kW Inverter Process (see Section 2 of the proposed interconnection procedures) and (ii) the "fast track" and supplemental review processes (see Section 3 of the proposed interconnection procedures) to the extent IREC's proposed revisions do not conflict with anything NCSEA has advocated for in its *Initial Comments* or in these reply comments.

#### 13. Energy storage devices

When FERC issued Order No. 792 on 22 November 2013, it provided a summary of the order that stated, among other things, the order

amend[ed] the *pro forma* Small Generator Interconnection Procedures (SGIP) and *pro forma* Small Generator Interconnection Agreement (SGIA) to . . . revise the *pro forma* SGIP and the *pro forma* SGIA to specifically include energy storage devices<sup>17</sup>

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<sup>17</sup> FERC Order No. 792 promulgating "Final Rule," pdf pp. 1-2 of version available at <http://www.ferc.gov/whats-new/comm-meet/2013/112113/E-1.pdf> (accessed 10 December 2014).

To be precise, FERC revised the definition of Small Generating Facility in Attachment 1 to the SGIP and Attachment 1 to the SGIA to read as follows: “The Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.”<sup>18</sup>

While the stakeholder discussions did not focus on energy storage devices, IREC has proposed that the Glossary definition of “Generating Facility” in the North Carolina interconnection procedures be amended to include the underlined language in the text box below. *See IREC’s Initial Comments* at p. 29.

**IREC’s Proposed Glossary Definition of “Generating Facility”**

Generating Facility – The Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.

NCSEA supports IREC’s proposal and recommends that the Glossary definition of “Generating Facility” in the North Carolina interconnection procedures be modified so that it encompasses not only traditional generating facilities but also energy storage devices. Specifically, NCSEA supports IREC’s proposal that the North Carolina definition be modified to conform to the new federal SGIP definition and thus read as proposed in the text box above. It is NCSEA’s understanding that the Utilities, in their reply comments, will support Commission approval of IREC’s proposed definition.

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<sup>18</sup> *Id.* at pdf p. 129.

## Public Staff's Comments

The Public Staff's *Initial Comments* raised at least one issue that merits an express NCSEA reply. The issue and NCSEA's comment thereon is set out below.

### 14. Formatting changes

The Public Staff has recommended that the North Carolina interconnection standard be formatted differently. Specifically, the Public Staff

believes that the North Carolina Interconnection Standard would be improved by formatting changes such as ceasing to use the 1.2.3.4 convention for subsections. The Public Staff has also raised the issue as to whether the Standard should be one or more rules rather than a tariff. Finally, the Public Staff has suggested that the glossary, which now appears at the end of the procedures section, would be more helpful if it were located at the beginning of the procedures.

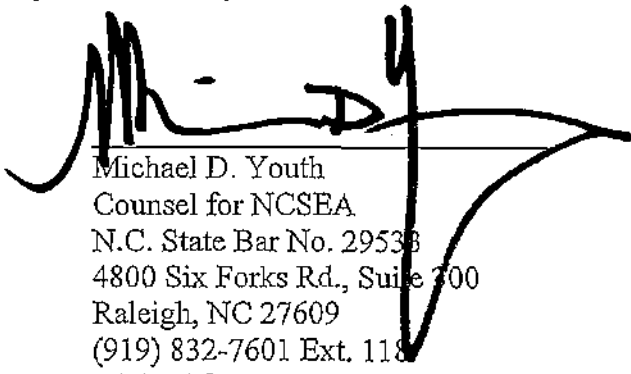
Public Staff's *Initial Comments* at pp. 18-19.

NCSEA has no objection to ceasing to use the 1.2.3.4 convention for subsections and adopting a more "rule-like" convention for identifying sections and subsections (e.g., §1(a)(i)). NCSEA supports moving the glossary to the beginning of the interconnection procedure and making it a definitional section of the procedure rather than an attachment or appendix to the procedure. As to whether the interconnection standard should be a rule or a tariff, NCSEA is generally supportive of making the Commission-approved standard easier for developers (and others) to find. Right now, the Commission-approved standard is not easily found on the Commission's website; this inhibits the ability of developers (and others) to compare the Commission-approved standard to the standards published by the individual utilities. If the standard were incorporated into a rule, it would certainly be easier for developers and others to find.

### Conclusion

NCSEA respectfully requests the Commission adopt NCSEA's recommendations made herein and in NCSEA's *Initial Comments*.

Respectfully submitted, this the 19<sup>th</sup> day of December, 2014.

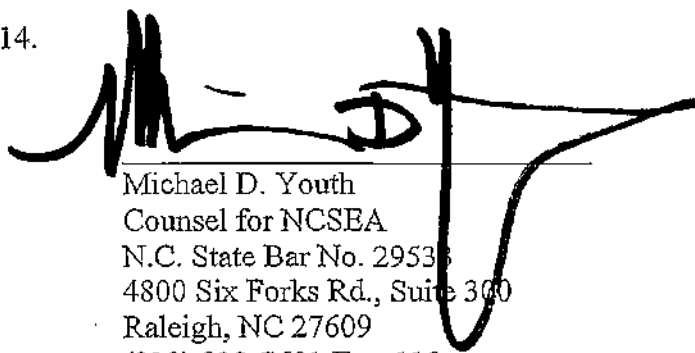


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### CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing Reply Comments, together with any attachments, by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 19<sup>th</sup> day of December, 2014.



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