



**ADDENDUM #1**

**May 23, 2024**

**TO: ALL POTENTIAL SUBMITTERS**

**FROM: RON VENTURELLA, BUNCOMBE COUNTY PROCUREMENT MANAGER**

**SUBJECT: ADDENDUM #1 FOR IFB RENEWABLE ENERGY PROCUREMENT & INSTALLATION FOR FIRE DEPARTMENTS**

The following changes, revisions, additions, and/or clarifications to the plans and/or specifications are hereby made a part of the original documents.

**Addendum # 1**

The following questions were asked by potential bidders (listed in no particular order):

Question	Answer
<p>Would you accept racking manufacturers approved in previous bids like SnapnRack for railed systems and IronRidge BX for flat roofs? Would you consider Unirac RM10 Evo for flat roofs?</p>	<p>SnapnRack and Unirac RM10-EVO are approved as alternative racking options.</p>
<p>After reviewing all the helioscopes, each site is designed with 480 watt modules, the scope states 465 watt or greater. With that being said if the module wattage is increased is it acceptable to reduce the amount of modules to keep from going over the DC to AC ratio of the inverter, and if reduced to the 465 watt threshold is the reduced wattage of the system acceptable?</p>	<p>If a larger wattage module is chosen vs. the Q Cell 480W used as the basis of design, then it is acceptable to reduce the number of modules installed. In no case should module choice cause the DC system size to be lower than that presented in the helioscope report for each station except when contract demand limits capacity. See contract demand and revised AC and DC capacities listed below.</p>
<p>Do any roofs have existing warranties?</p>	<p>Much of this information is not available. The information has been requested and any information available will be provided with the addendum.</p>

Can they provide one line diagrams to as many of the sites as possible?	No, one line diagrams are not available.
Is it possible to move PV equipment from proposed rack to walls outside the electric room at the Leicester site?	Yes
Has the KW size been pre-approved by Duke? If not it could slow down the interconnection process?	No, however, the contract demand for each system is included in the addendum.
If the site is under 50KW does the County require an engineer stamp? Since Duke does not.	You will be required to provide single-line drawings, layouts, structural certifications, and all documentation required for interconnection and permitting to the owner for review prior to installation, as well as as-built drawings and any documentation required for inspections post installation.
Has the roof condition at 19 White Pine Drive been assessed since it will require mechanical attachments being a TPO roof with a 5 degree pitch?	The roof condition has not been assessed specifically for this issue.
Can we get copies of Building plans, electrical drawings, structural plans (General)	No, plans are not available
Can we get a copy of bills and/or has Contract Demand been researched to make sure these systems sizes will be approved by Duke? (General)	The contract demand for each system is included in the addendum
Who is roof material manufacturer for Town of Black Mountain FD and Black Mountain 19 in regard to ballasted systems? (General)	This information isn't known.
Will full-plansets need to be stamped by an engineer? Or, will only electrical and structural stamps be required? (General)	You will be required to provide single-line drawings, layouts, structural certifications, and all documentation required for interconnection and permitting to the owner for review prior to installation, as well as as-built drawings and any documentation required for inspections post installation.

Has Duke approved all the system tie-ins to the Duke CT cabinets that are shown on documents? (General)	No, If you determine there is an issue with tying in at the CT cabinets, please plan to provide a junction box adjacent to the cabinets to make your tie in.
Are slip-sheets required on ballasted systems? (General)	Yes
Would Jinko JKM465M-7RL3-T module be allowed as a substitute on all projects? (General)	Only modules that meet all of the requirements provided in the RFP, including manufacturer, will be allowed.
Would it be allowed to place inverters and disconnects on ground of back wall of firetruck bays rather than roof or back of building? (Town of Black Mountain FD)	Yes, Final equipment locations are subject to owner approval.
Is the intention to just have ballasted system on Black Mountain 19 or add mechanical attachments? (Black Mountain 19)	Provide mechanical attachments if required
Can the array at Black Mountain 19 be shifted to the other end of building for better exposure?	Yes
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Swannanoa 501 Bee Tree)	No
Could we change the system tie-in to the MDP instead of Transformer? (Swannanoa 501 Bee Tree)	Yes, as long as all code requirements are met, Final equipment locations are subject to owner approval. If tying in downstream of a Generator, an automatic inverter/generator lockout device is required.
Is there a preferred method of getting conductors from roof-top to system tie-in: trenching or along awning and walls? (Swannanoa 103 South Ave.)	The lowest cost option is the preferred method here
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Swannanoa 103 South Ave.)	No
Where is the system tie-in outside next to meter can if not allowed in Duke equipment? (West Buncombe Station 5)	Generator ATS

Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (West Buncombe Station 6)	No
Leicester address is incorrect (Leicester)	1563 Alexander Rd, Leicester, NC 28748
Can the system tie-in be changed to Building's MDP or ATS and can the Inverter/Disconnect be moved to the building? (Leicester)	Yes, as long as all code requirements are met, Final equipment locations are subject to owner approval. If tying in downstream of a Generator, an automatic inverter/generator lockout device is required.
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Leciester)	No
Can the system tie-in be changed to Building's MDP or ATS and can the Inverter/Disconnect be moved to the building? (Upper Hominy)	Yes, as long as all code requirements are met, Final equipment locations are subject to owner approval. If tying in downstream of a Generator, an automatic inverter/generator lockout device is required.
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Upper Hominy)	No
Will metal roof at Reynolds be allowed to be penetrated on trapezoidal metal roof? Larger array is not standing seam. (Reynolds)	Yes, provided penetrations are minimized and sealed appropriately.
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Reynolds)	No
Is the intention to move the Inverter/Disconnect location at Skyland from the stairwell to around the corner of the building? (Skyland)	The intention is to move the inverters and combiner panel out of the stairwell, around to the corner of the building. The Disconnect should stay on the exterior wall as near the meter as possible.
Could Rail-less racking such as S-5! PVKits be approved for Standing metal seam roofs? (Skyland)	No
Do we need to provide bids for Reems Creek or exclude it from proposal? (Reems Creek)	Please exclude Reems Creek from your bids

The following clarifications are hereby made a part of the original documents.

**ORIGINAL DC CAPACITIES FROM BIC DOCS**

Name	DC Size (KW)	AC Size (KW)	C Max Peak (KW)	Notes
Woodfin	28.8	20	24	
West Buncombe VFD Station 5	55.7	43.2	29	Old Inverter Size, AC size Over Max Peak
Leicester	28.8	20	26	
Upper Hominy	34.5	28.8	HEMC	Old Inverter Size
Reynolds	28.8	20	22	
Skyland	36.48	34.6	31	AC Size Over Max Peak
Black Mountain Fire 19	15.36	11.4	15	
Town of Black Mountain	71.52	60	51	AC Size Over Max Peak
Swannanoa 510 Bee Tree	23.04	17.3	22	
Swannanoa 103 South Ave	12	10	18	

DC size shall be at least as large as is specified in the provided Helioscope reports, except at West Buncombe VFD Station 5 and Town of Black Mountain where the AC capacity must be reduced to account for max peak. The DC/AC ratio for those stations should be 1.5 minimum. AC capacity shall be as specified in the provided helioscopes, except where the specified size is above the max peak, in which case the AC size shall be as close the to the AC capacity as possible using currently available Solar Edge inverters. Where an unavailable Solar Edge inverter has been specified, match the specified AC capacity as closely as possible using currently available models.

**UPDATED AC CAPACITIES BASED ON MOST RECENT CONTRACT DEMAND** *We were informed by Duke that Max Peak and Contract Demand have the same meaning in systems this size.*

Name	DC Size (KW)	AC Size (KW)	AC Max Peak (KW)	Inverters & Service Voltage
Woodfin	28.8	20	24	2X 10Ks
West Buncombe VFD Station 5	<b>40.95</b>	<b>27.3</b>	29	10K & 17.3K 208V
Leicester	28.8	20	26	2X 10Ks 208V
Upper Hominy	34.5	<b>27.3</b>	HEMC	10K & 17.3K 208V
Reynolds	28.8	20	22	2X 10Ks 208V
Skyland	36.48	<b>27.3</b>	31	2X 10Ks 208V
Black Mountain Fire 19	15.36	11.4	15	11.4K 240V

Town of Black Mountain	60	40	51	40KW 480V
Swannanoa 510 Bee Tree	23.04	17.3	22	17.2K 208V
Swannanoa 103 South Ave	12	10	18	10K240V

**ADDITIONAL SITE NOTES:**

Site	Notes
West Buncombe	Roof installed 1999, last year was recoated to add 30 yr warranty;
Woodfin	Roof installed 1995 by Cooper Enterprises. Manufacturer is Kirby; no warranty
Reynolds	Building constructed in 1993, all warranties expired
Upper Hominy	No information available
Leicester	Built in 2022; Manufacturer is Metal Roofing Systems (843)280-8330
Swannanoa Sites	No information available
Skyland	No information available
Black Mountain	No information available

**END OF ADDENDUM #1**

**IFB RENEWABLE ENERGY PROCUREMENT & INSTALLATION FOR FIRE DEPARTMENTS**