RESPONSE TO DOMINION ENERGY’S RURAL BROADBAND REQUEST FOR INFORMATION (RFI)

The Albemarle County Broadband Authority (ABBA) is pleased to respond to Dominion Energy’s Rural Broadband Request for Information (RFI). ABBA is responding on behalf of Albemarle County.

Dominion Energy’s Rural Broadband Goal “is to provide the important “middle-mile resource” needed to extend service into unserved communities.” ABBA’s Goal is to “extend affordable broadband internet service access to every customer in Albemarle County.”

ABBA is a willing partner to support achievement of Dominion Energy’s Rural Broadband Goal through our participation in Dominion Energy’s Rural Broadband Pilot Program (Pilot). ABBA has an active Rural Broadband partnership with Central Virginia Electric Cooperative. ABBA can re-establish similar partnerships with CenturyLink and Comcast as potential middle mile partners.

ABBA is a leading coordinator of successful rural broadband projects. ABBA looks forward to participating in the Pilot as an experienced local government partner.

Questions, clarifications, or concerns about this response should be directed to the ABBA Chief Administrative Officer, Mike Culp. Mike can be reached through email (mculp@albemarle.org) or by phone (434) 296-5891.
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Introduction and ABBA Principles

The Albemarle County Broadband Authority (ABBA) is pleased to submit this response to the Dominion Energy Rural Broadband Request for Information. ABBA is submitting this response in support of Albemarle County with an intent to include other adjacent counties (Regional) in any solution developed as result of Dominion Energy’s Rural Broadband Pilot Program (Pilot).

ABBA believes our goal to extend affordable broadband internet service access to every customer in Albemarle County fits well with Dominion Energy’s goal to provide the important “middle-mile resource” needed to extend service into unserved communities.

ABBA is a willing partner to support achievement of Dominion Energy’s Rural Broadband Goal through our participation in the Pilot. ABBA has an active Rural Broadband partnership with Central Virginia Electric Cooperative. ABBA can re-establish similar partnerships with CenturyLink and Comcast as potential middle mile partners.

ABBA is a leading coordinator of successful rural broadband projects. ABBA looks forward to participating in the Pilot as an experienced local government partner. For Dominion Energy’s consideration for including ABBA in the Pilot; ABBA conducts business using the following principles:

Albemarle County Broadband Authority Principles:

1. ABBA will partner with current or future businesses to provide internet services.
   a. ABBA will not operate its own internet service provider facilities
   b. ABBA will facilitate investment in internet infrastructure through grants and public/private partnerships
   c. ABBA will not establish preferred provider relationships. ABBA may engage specific providers for specific projects based on requirements for that project and provider availability.

2. Broadband technologies with which ABBA works must be robust.
   a. Some technologies and implementations are subject to significant degradation due to weather, time of day usage, or other factors. A robust solution will normally meet the broadband definition consistently.
   b. Solutions which do not meet the broadband definition will not be a focus.

3. Funding sources other than debt will be used for all ABBA activities.
   a. Federal, state, local and private grants will be sought as needed.

ABBA History

The Albemarle Broadband Authority was formed by the Albemarle County Board of Supervisors in August of 2017. The formation was as a result of recommended strategies put forward in the initial broadband plan for the County.

The County succeeded in a Virginia Telecommunication Initiative (VATI) broadband grant project with CenturyLink in 2017 and then again in 2018 with Comcast. This led to an agreement that future applications for funding and partnerships will be managed and maintained by ABBA. The site
ABBA Service Area

Answers the RFI Question: “Please provide an overview of the Broadband availability for your specified area.”

ABBA’s service area encompasses all rural areas of Albemarle County. ABBA uses a combination of broadband service mapping provided by the Commonwealth of Virginia, the Federal Communications Commission Connect America Fund (FCC CAF), the USDA ReConnect mapping, and most importantly broadband reports submitted by our citizens to determine unserved. ABBA determined the Form 477 filings by ISPs in the rural areas are overstated. ABBA first identified this issue in 2017 and more recently, more government agencies have taken up the charge. ABBA produced a whitepaper, which is open for review with Dominion Energy, suggesting several ideas around collecting consistent and accurate data for broadband service.

ABBA and CenturyLink partner together to extend existing service in Albemarle County as CenturyLink is the primary service provider. ABBA continues to work toward fiber coverage throughout the County. Our reliance on CenturyLink to provide fiber to the home is detailed in other sections of this response. ABBA can provide detailed maps of the CenturyLink coverage area upon request.

ABBA also works closely with Comcast to extend broadband service to the rural areas; having recently completed a rural project funded by the Virginia Telecommunication Initiative. The project is included in the following Comcast Coverage map.
ABBA also has a new partnership with Central Virginia Electric Cooperative (CVEC). This partnership is also an effort to extend rural broadband through fiber to the home/premise. CVEC is working to provide fiber in multiple sections of the County. The effort is intended to serve CVEC members first system wide and then extend to non CVEC members. ABBA considers partnerships to activate the non CVEC members an effort to consider for the Pilot and has constructed maps to show areas where extensions could occur while or immediately after the CVEC / Firefly projects. The overview map of the CVEC projects is included:
ABBA is working with CVEC to complete the Midway project through VATI funding. This project is on schedule for activation in April/May 2020.
ABBA’s strategic intent is to work with all partners to extend service beyond the current CVEC plans or continue to strategize advancement and conclusion of all CVEC projects before 2024.

ABBA Unserved Areas

Answers the RFI Question: “Can you identify portions of your locality that are considered Unserved?”

Much of the information about how ABBA determines unserved areas is provided in the ABBA Service Area section. ABBA has detailed maps and reports from citizens to depict the significant and many unserved areas of the County. ABBA continues its work with ISPs to extend service and keeps a list of priority areas. Eight of the priority areas are pending review by the Virginia Telecommunication Initiative Grant for 2020 and provided in the following eight images.
(1) Buffalo Hills Overview

(2) Watts Passage Overview
(3) Coles Rolling Road Overview

(4) Scottsville Road Overview
(5) Hatton Overview

(6) Keene Overview
The following are examples of other Unserved priority project areas for ABBA:

**ABBA Unserved Area: St. John Road in Cobham**

**ABBA Unserved Area: Craigs Store Road to Nelson County**
ABBA Unserved Area: Dick Woods Road near Handley Estates

ABBA Unserved Area: Greenwood west of RR tracks (not part of Comcast Project)
ABBA Unserved Area: Free Union Road and Shiffletts Mill Road

ABBA Unserved Area: Tilman Road Between Owensville Road and Rte 250
ABBA Unserved Area: Advance Mills Road North of Earlysville

ABBA Unserved Area: Allen Road in Earlysville, VA
ABBA ISP Partnerships

Answers the RFI Question: “Is your locality already working with a non-governmental ISP to expand Broadband coverage in your area?” Yes, as mentioned in the ABBA History section and the ABBA Service Area section ABBA has worked with CenturyLink, Comcast, and now CVEC Firefly ISPs to expand Broadband coverage. The CVEC Firefly expansion is summarized by the following image:

Potential Unserved Areas After CVEC Tax Grant Project Completion

The areas outlined in red are considered high priority areas for service. The following image provides an example of detail on one of the areas.
ABBA is reaching out to the non CVEC members in each section collecting Broadband service levels and working on ways to extend service to them. The initiative with CVEC includes a VATI 2019 funded project to complete the Midway project depicted here. The yellow highlights indicate areas where ABBA intends to extend service beyond the current CVEC/Firefly Plan.

ABBA is also actively working with CenturyLink in preparation for a potential VATI project in 2020. If offered funds, the CenturyLink project will extend fiber broadband service to another 837 units.

The CenturyLink project County wide is depicted on the following page; with a subsequent page showing details of fiber placement and infrastructure for one of eight high priority unserved areas.
ABBA CenturyLink VATI 2020 County Wide View: Eight Project Areas Labeled in Gold
Here is a detailed example of the fiber placement and expense for area 1 of the prior map.

**Charlottesville North – Buffalo Hills (FTTH)**

Here is the funding detail for the project:

<table>
<thead>
<tr>
<th>Project</th>
<th>Units passed</th>
<th>Project Cost</th>
<th>VATI Request</th>
<th>ABBBA Funds as Contribution</th>
<th>County Contribution</th>
<th>Total ABBBA and County Contribution</th>
<th>Total ABBBA &amp; County ~Cost per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midway (CVEC)</td>
<td>698</td>
<td>$1,454,723</td>
<td>$301,748</td>
<td>5% of total cost matching the Tax Grant Agreement: $71,500</td>
<td>$71,500 in Tax Grant</td>
<td>$143,000</td>
<td>$204.87</td>
</tr>
</tbody>
</table>

Hence the need to partner with the Pilot. If any of unserved areas (see ABBA Unserved Areas section) cost to deploy can be offset from use of Dominion Energy middle mile; ABBA is prepared to assist.

**ABBA Grant Awards**

Answers the RFI question: “Have you applied for or been awarded any grant rewards associated with the provision of Broadband internet services?”

ABBA and Albemarle County are successful grantees for three Virginia Telecommunication Initiative (VATI) Grants. Albemarle County with its co-applicant CenturyLink was offered and accepted $118,000 in funds for the first year of VATI. Albemarle County with its co-applicant Comcast was offered and accepted $473,366 in funds for the second year of VATI. Both projects were installed prior to the deadline and in total passed by 458 living units without broadband.

ABBA then applied for VATI as part of the VATI 2019 grant process and was awarded for the CVEC Midway Project. Here is the funding detail for the project:
ABBA considers its experience working with various ISPs on many projects as a key factor in support of the Pilot.

**Broadband Availability in ABBA Service Area**

Answers the RFI question: “Can you provide data to support the Broadband availability and level of service (Mbps)?”

As stated in the ABBA Service area section ABBA uses a variety of sources to map broadband availability in the County. The most prevalent method is the citizen tool found at [https://www.albemarle.org/broadbandreport](https://www.albemarle.org/broadbandreport). This tool supports the capture of broadband data by citizens. ABBA then follows up with the citizens and gathers more information about whether they have contacted ISPs who might provide service and we ask for details on current service levels. The results are then mapped like the images provided in the ABBA Service Area starting on page 12. The ABBA tool supports selection of specific areas and exports data in a variety of formats for analysis. ABBA then merges all addressable locations in the project area and creates a map which includes parcel owner. A next step is to determine how many addressable locations are on a parcel and whether the occupants are renting/leasing or own the property. The final steps include a review of the number of children in the area attending public school. This data provides ABBA with the information it needs to include in Grant applications. What follows are a few images of selected project areas with comments from citizens included in the dataset.
ABBA High Priority Area - Buffalo Hills Citizen Broadband Reports

ABBA High Priority Area - Green Creek Road Citizen Broadband Reports
Broadband Availability at Key Economic Development Sites

Answers the RFI question: “Are there one or more existing fiber providers at all of your key economic development sites?”

ABBA is including maps of the fiber routes through Albemarle as reference to the Fiber Providers available. While these maps represent availability along the major roads; there is additional expense necessary to add fiber connectivity to the key economic development sites. ABBA maintains a strong relationship with the Albemarle County Economic Development Authority (EDA). ABBA suggests a partnership with the EDA to identify development funds coupled with the Pilot to offset costs of bringing fiber connectivity to existing businesses and institutions and factor in the costs for providing fiber through the Pilot program for new businesses and institutions.
Fiber Routes 2 of 3
 Unserved Publicly Owned Facilities in ABBA Service Area

Answers the RFI Question: “Does your area or locality have publicly owned facilities or institutions that are considered Unserved?”

ABBA’s goal includes reaching all publicly owned facilities with fiber broadband. The primary goal is to provide service to the Volunteer Fire Rescue Stations in the Rural Areas. A secondary goal is to provide service to each of the rural area Parks. All public schools are on fiber; however, providing a redundant and possibly diverse connection to each school is a strategy. ABBA believes interconnecting these locations on a fiber network brings an added level of security and means of providing fast and efficient notifications and data sharing in the event of a disaster or other type of emergency. On the following pages ABBA is providing maps of the Publicly Owned Facilities and Fire Rescue Stations considered unserved.
3 Unserved Fire Stations in Rural Areas

The 3 Volunteer Stations in the red outlines are considered priority areas for Fiber as fiber offerings today are either unavailable or too expensive to deploy.

Albemarle County also has six major parks in need of fiber connections, two of which provide public swimming beaches and boating. The next image shows the six parks highlighted in red:
Six Albemarle County Parks in need of Fiber

Conclusion
ABBA is available to work on the Pilot and looks forward to Dominion Energy’s response. If more information is needed, please contact the ABBA Chief Administrative Officer: Mike Culp. Mike can be reached by email mculp@albemarle.org or phone (434) 296-5891.