

Additional narrative

1.1 Impact on Distance learning, telehealth, telemedicine and telework

These factors take into consideration the impact the project will have on the Iowan's being better able to be educated remotely, receive healthcare and work remotely as a result of COVID19

Describe how your broadband infrastructure project will facilitate distance learning in the state of Iowa through Broadband improvements, in connection with school closings to enable compliance with COVID precautions. Generally speaking, applications that demonstrate that the broadband investments forming the basis of the project will have a greater impact on distance learning needs in their response will receive higher scores.

There are 33,110 households who lack reliable broadband internet within the state of Iowa. Allamakee County is one of the highest TSA regions within the state. As you can tell from the Board Availability and Targeted Service Area map, Allamakee County and the proposed project areas of the five (5) townships of Makee, Union Prairie, Hanover, French Creek and Lansing are within the 33,110 homeowners. There are 14 schools located within a TSA across the state and Allamakee Community School District is one of those. This digital divide has always left children and adults alike with fewer educational and economic opportunities. Part of the issue within the five listed townships is due to the terrain and lack of neighboring telecommunication companies that want to invest in such an area. The costs of provided services to these homeowners and business is cost prohibitive. The costs per passing average around \$11,000 per home. The proposed project covers a large area of 204 miles, 460 households and 83 businesses.

Allamakee Community School District (ACSD) and St Patrick's School services the children living in proposed project area. Both schools have completed surveys for their children and families. Those findings include ages of children in need of technology to work from home, those without access and reasons why they do not have access. ACSD educates 1,048 children ranging from ages 3 to 18 years of age. ACSD's high school students have access to college level courses through Northeast Iowa Community College (NICC). NICC serves 339 concurrent enrollment students and 899 non-credit students while 39 students have obtained their high school equivalency diploma. Allamakee County like many counties is seeing a population decline. There is a high number of out-migration for employment with graduating seniors both in high school and from NICC.

ACSD has also taken an active approach to distance learning. ACSD has created a Return to Learn Plan including the assurance of adequate health resources and support; ensure workplace safety; ensure student care; a plan for building social distancing; and support of effective mitigation strategies. ACSD has hosted various trainings to assist teachers distance teach, those include:

- Blended/Flipped Learning;
- AEA provided an extensive list of Online Learning Trainings;
- Basics to Google Apps;
- Online Learning with Seesaw;
- Hosting Remote Learning Classes;
- Creating Flipped Lessons;

- Online Learning with Canvas and Google Classroom;

ACSD teaches their students from day one the usages of technology while having technology courses and class time.

St. Patrick's Catholic School is also located within the census tract. St Patrick's School boasts of 203 children ranging from 3 year of age to 13 years of age. Teachers from St Pat's have attended workshops on See saw, google classroom training, online trainings with AEA trainings as well. St Patrick's School hosted technology trainings within the classrooms teaching 4-year-olds to sixth graders, attend stem classes to complete hands-on learning and have one-on-one technology to take home such as kindle fires and chrome books. As you can see the school and the children are prepared to distant learn and be successful.

The benefits for children to learn from home are numerous:

- Less distractions in the classrooms such as peers to talk to;
- Benefits are shown more so with shy kids, hyperactive kids, highly creative kids;
- Socialization benefits;
- Beneficial learning by self-pace;
- Children learn independence, responsibility and ownership;
- Children are showing better mental health patterns by not having over extended schedules;
- There is less bullying, distractions and intimidation on-going with the children.

"Data shows that lack of broadband access often corresponds with lack of attainment — whether it's educational or economic opportunities or health care outcomes," noted Reynolds. More than ever, residents working from home, distance learning and utilizing tele-health are screaming for better broadband. Broadband is one way to secure Iowa's future both educationally and economically.

1.2 Describe how your broadband infrastructure project will facilitate telehealth and telemedicine services in the state of Iowa, through improvement, in connection with treating and responding to COVID. General speaking application that demonstrate that the broadband investment forming the basis of the project will have a greater impact on distance learning needs in their response will receive higher scores.

Hospitals and clinics are quickly adopting telehealth to treat quarantined patients infected with COVID-19 while keeping other patients and staff healthy. Veterans Memorial Hospital, a city owned, 25-bed facility and Gundersen Lutheran Clinic, a satellite facility, are already gearing up for telehealth with cardiac, digital radiography neonatal and stroke patients. Veterans Memorial is investing in a clinic that will open in the fall of 2021. Increased healthcare needs due to Covid has caused the hospital to look at options to locally support their patients.

Within the footprint of the proposed project, there is 204 miles and 543 passings. This is a very large area and project that will assist a large percentage of the rural population in Allamakee County.

Advantages of Telemedicine for Patients

1. See/consult more patients in a day;
2. No transportation time or costs;
3. No need to take time off of work;
4. Eliminate child or elder care issues;
5. On-demand options. ...
6. Access to Specialists. ...
7. Less Chance of Catching a New Illness. ...
8. Less Time in the Waiting Room. ...
9. Provide Better Health.

With the proposed project Veterans and Gundersen facilities can utilize software system to read images and files and other migration needs.

1.3 Describe how your broadband infrastructure project will facilitate increased telework in the state of Iowa, through improvement, in connection with remote work arrangements implemented by employers in response to COVID public health precautions. General speaking application that demonstrate that the broadband investment forming the basis of the project will have a greater impact on telework capabilities will receive higher scores.

Allamakee County is a heavily targeted TSA within the state of Iowa. The proposed project encompasses over 543 passings and 204 miles. More so than creating jobs, the proposed project will definitely host job retention. With people being mandated to work from home, job retention of those 460 households could easily be seen.

Another factor to look at on the proposed route would be the agricultural section. A large portion of businesses within the footprint are agricultural businesses. According to a study from Iowa State University, including the cattle slaughter and beef processing sector, the Iowa beef industry generates an estimated 32,317 jobs, \$1.36 billion in labor income, \$6.30 billion of total output, and \$2.24 billion in value added or gross domestic product. Allamakee County is one of the leading beef producers within the state. Nationally, Iowa ranks twelfth in dairy cow inventory with 215,000 head on January 1, 2017. Allamakee County's number 1 industry is still agriculture. Studies show each animal retains 8 jobs within a community. Therefore, aiding the rural areas of Allamakee would significantly retain jobs and impact communities in a positive way.

The benefits to employees from teleworking are many, those include:

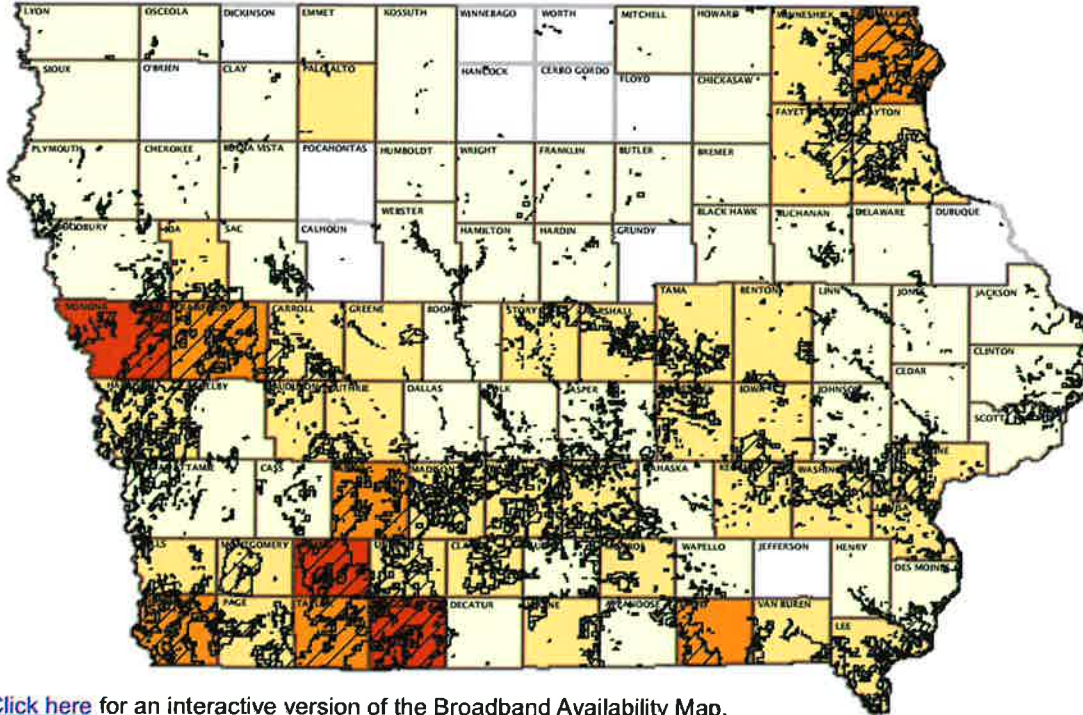
- **Allows employees to be more effective.** With the right tools and a flexible schedule, employees are able to work any time, anywhere, without the distractions of the office. This allows employees to be more focused and productive.
- **Increases management results.** Managers with telework employees often have more efficient employees with higher standards of work. Managing the results of your telework employees will help you to gauge the success of your program.

- **Assures uninterrupted work.** Without the need to commute, your telework employees escape a great number of the delays associated with traffic and extreme weather. And without the distractions of the office, teleworkers are able to focus better on their work.
- **Decreases employee recruitment and training costs.** A flexible workplace raises morale and lowers employee turnover. Higher employee retention lowers company recruitment, hiring and training expenses. Profitable companies seek the top employees and attempt to hold onto them. Job seekers want more than high pay – they want challenging, interesting, supportive and flexible work environments. And companies with a telework program have an obvious competitive edge over those that don't.
- **Allows for Business Continuity.** Teleworking can be a key component of a business continuity plan in the event of bad weather, a pandemic, or any other crisis that closes the central office location for any period of time.
- **Lowers relocation costs.** In some cases, the cost of relocating employees can be avoided altogether by combining a telework arrangement with business travel.
- **Increases quality of life.** The flexibility of working off-site allows employees to focus on work, without the stress of how to get there.
- **Lowers personal costs.** Telework employees spend less on their professional wardrobe, eating out, dry cleaning and transportation (including vehicle usage, gas and insurance).
- **Expands your human resource pool.** There's an untapped talent pool of qualified potential employees that are unable to drive. Teleworking can alleviate the need for transportation altogether, allowing companies to hire these empowered, independent employees. The result is a telework staff with higher morale, work ethic and company loyalty.
- **Benefits the environment.** The fewer cars on the highways, the safer and healthier the environment is for us all. And companies can feel good about reducing their employees' dependence on oil.

Broadband Availability and Targeted Service Areas

The Office of the Chief Information Officer (OCIO) is required to determine broadband service availability by census block on a periodic basis. Broadband availability is reported by census block from service providers as required through the Federal Communications Commission (FCC) [Form 477](#) survey. Broadband is defined as 25 Mbps download and 3 Mbps upload speeds or better. A block is termed a **Targeted Service Area (TSA)** if it does not have broadband availability. Funding incentives are limited to TSAs. TSAs are current as of July 31, 2020.

Estimated Percentage of Households Without Broadband Coverage by County



[Click here](#) for an interactive version of the Broadband Availability Map.

Estimated Percentage of Households Without Broadband Coverage by School District

