1 2 3 4		BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN
5 6 7 8 9 10 11 12	Re:	Joint Application of American Transmission Company LLC and Northern States Power Company-Wisconsin, as Electric Public Utilities For Authority to Construct and Operate a New 345KV Transmission Line from the La Crosse area In La Crosse, County to the greater Madison area In Dane County, Wisconsin
13 14 15		DIRECT TESTIMONY OF BREA GRACE CRITICAL OF THE JOINT APPLICATION
16	Q:	Please state your name and business address?
17	A:	My name is Brea Grace. My business address is 415 Main Street, Onalaska, WI
18		54650.
19	Q:	What is your present position with the City of Onalaska?
20	A:	I am the Land Use & Development Director for the City of Onalaska.
21	Q:	Please describe your educational background, professional experience and training
22	A:	I received a Bachelor of Arts Degree from the University of Wisconsin–Stevens Point
23		in 1999. In 2004, I received a Master's Degree in Urban and Regional Planning from
24		the University of Wisconsin-Madison. I have been the Land Use & Development
25		Director for the City of Onalaska since May 2012. Prior to this position, I was the
26		Development Director for the City of Ashland, Wisconsin for eight-years. In my
27		current position as Land Use and Development Director I am overseeing a 10-year
28		update to the City of Onalaska's Comprehensive Plan and am responsible for the
29		enforcement of municipal codes relative to land use, zoning, and inspections. I
30		oversee and evaluate community development as executive staff to the Community
31		Development Authority (CDA) to assure that it occurs in a manner consistent with

1 the City's Comprehensive plan and play a key role in economic development in 2 Onalaska. I provide a wide range of long range planning guidance and 3 recommendations to the City of Onalaska Plan Commission and Common Council. I 4 am a member of the American Planning Association, the American Institute of 5 Certified Planners (AICP) and the Wisconsin Chapter of the American Planning 6 Association. 7 Q: For whom are you testifying? 8 A: I am testifying on behalf of the City of Onalaska. 9 0: What is the purpose of your direct testimony? 10 A: The purpose of my testimony is to objectively describe impacts that Segment O of 11 the proposed Badger-Coulee transmission line will have on City of Onalaska's land 12 uses. The City of Onalaska has a long history of proactive land use planning. The 13 City of Onalaska's Common Council has adopted a variety of planning documents 14 which were developed through public processes and have included community-15 wide public participation. Specific planning documents which are applicable for the 16 proposed siting of the Badger-Coulee transmission line include: the City of Onalaska 17 Comprehensive Plan (2005); the City of Onalaska Comprehensive Outdoor 18 Recreation Plan (2010); and the City of Onalaska Central Greenway Master Plan 19 (2001); and the Menards/Elmwood Master Plan (2004). Additionally, the City of 20 Onalaska has limitations which are placed on development through the City of 21 Onalaska Unified Development Code, a chapter of the City of Onalaska's Code of 22 Ordinances.

1	Q:	What information did you use for your evaluation?
2	A:	The joint application, the Draft Environmental Impact Statement, the Final
3		Environmental Impact Statement, and ATC's responses to the City of Onalaska's
4		discovery requests. I also reference the City of Onalaska Comprehensive Plan
5		(2005); the City of Onalaska Comprehensive Outdoor Recreation Plan (2010); and
6		the City of Onalaska Central Greenway Master Plan (2001); the Menards/Elmwood
7		Master Plan (2004); and the City of Onalaska Unified Development Ordinance.
8	Q:	Of the route and route segments contained in Applicant's application, are there
9		routes or segments you conclude are better taking into consideration the needs of
10		the City of Onalaska and its residents?
11	A:	The City of Onalaska is opposed to Segment O. The Northern Route, including
12		Segments P and N better take into consideration the needs of the City of Onalaska,
13		its residents and business owners.
14	Q:	Which route or routes do you conclude are better and more reasonable routes?
15	A:	The Northern Route, including Segments P and N.
16	Q:	Why?
17	A:	The Northern Route, including Segments P and N will have less impact on existing
18		residential properties and the Northern Route will not hinder large multi-family and
19		commercial development that is planned to occur, which Segment O would do. The
20		City of Onalaska has invested a great amount of time and efforts promoting
21		economic development, which could be slowed and hampered if Segment O of the
22		Badger-Coulee is chosen. The Northern Route utilizes a significantly larger
23		percentage of existing right-of-way corridors. Segment O requires new cross-

1		country right-of-way for 65% of the total right-of-way area. Segment O also passes
2		through the Coulee Region which is uniquely
3		covered with ridges and valleys that will certainly impact the transmission line pole
4		placement.
5	Q:	Are there concerns with the potential impact of the Segment "O" on the City of
6		Onalaska's Comprehensive Plan, Bluffland Protection and Greenway Plan
7		Requirements for the City of Onalaska?
8	A:	Yes, I have concerns about Segment O which are shared by the City of Onalaska's
9		Common Council, the Plan Commission, and the Community Development Authority
10		as well as Onalaska property owners and businesses. The City of Onalaska
11		Comprehensive Plan recognizes the unique characteristics of Onalaska with its
12		location in the heart of the Driftless Area composed of scenic ridges and valleys
13		created by glacial melt water which exposed limestone, sandstone and dolomite
14		outcroppings. The Plan highlights the extreme importance of protections for
15		blufflands and ridgetops from development that would negatively impact the land
16		and the population of the Coulee Region as the area continues to grow. The steep
17		slopes of the blufflands and ridgetops are sensitive from an environmental
18		perspective because as development occurs on these slopes, increased amounts of
19		storm water runoff and erosion of the slope's soils migrate from newly developed
20		sites and negatively impact surrounding properties, the City's storm water system,
21		and potentially the quality of surface waters. To protect these unique
22		environmental areas, as well as surrounding land uses and surface waters, the City
23		of Onalaska has an erosion control ordinance which requires erosion control plans

for land disturbance activities and requires approval of the plan before development occurs. The City actively monitors plan implementation to ensure that best management practices are utilized throughout the life of construction activities. An additional measure to prevent the development of blufflands is the restriction that land disturbances on sites with more than 4,000 square feet and with slopes greater than 30%, are prohibited with the exception of access roads or the installation of underground utilities to the site. Land use regulations in the City of Onalaska also restrict the development of blufflands with a maximum front yard setback of 40-feet and the prevention of providing water services to sites above 900-feet in elevation.

The City of Onalaska Comprehensive Plan further discourages the disruptive development on ridge-tops that would be visible outside of the immediate development area which damages the scenic character of the Coulee Region. This is one of the reasons as to why the City of Onalaska is objecting to Segment O of the Badger-Coulee transmission line. The City of Onalaska Comprehensive Plan also emphasizes that the natural topography of the Coulee Region contributes to the attractiveness of Onalaska as a unique city to live, work, and partake in outdoor activities founded on the basis of topography. This value coincides directly with the purpose and intent of the City of Onalaska Unified Development Code by preserving and protecting the natural scenic beauty of Onalaska by careful regulation on the siting of structures in bluffland areas to preserve the unique topography through requiring good design and architecture. The City has historically and continues to plan for the development of attractive and safe multi-modal transportation

corridors by planning for corridor improvements that enhance the visual character and identities of all corridors, including burying overhead utility lines.

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In addition to protecting Onalaska's bluffs for environmental purposes, the City Onalaska Comprehensive Plan also focuses on protecting the bluffs as important open space/environmental corridors which are a recreational and scenic asset to the community. Over the years the City of Onalaska has taken active steps to preserve blufflands for their environmental, scenic and recreational benefits. Successes can be attributed to the implementation of the City of Onalaska Comprehensive Outdoor Recreation Plan (CORP) which recognizes that Onalaska's beautiful ridges, bluffs, and valleys contribute much to the attractiveness as a place to live and recreate, as well as the implementation of the City of Onalaska Central Greenway Master Plan. The City of Onalaska Central Greenway Master Plan identifies specific goals to provide public access and public use of Onalaska's natural resources through a well-planned park and trail system. The Master Plan envisions a city-wide system that would ultimately connect the Great River State (bicycle) Trail with the La Crosse River State Trail through the City of Onalaska via the bluffs, valleys and public right-of-ways.

In 1999 the City of Onalaska began working on a comprehensive effort to conserve a large portion of the La Crosse River marsh area, with the Mississippi Valley Conservancy, Gunderson Health Systems, and the City of LaCrosse. More than 350-acres of land have been secured by acquisition or conservancy easements for the development of a nature based recreational area used for non-motorized boating, wildlife viewing, bird watching, hiking, and scenic viewing. The installation

of Segment O, along I-90, would have a negative impact on visitors' experiences to this natural recreational area, and would work against the objectives of this multipartner parkland development.

Q:

A:

Additionally, as a result of the afore mentioned planning efforts, the City of Onalaska expanded Greens Coulee Park with the purchase 67-acres in 2000 and an additional 150-acres in 2015, which is centrally located within Onalaska's urban growth area and offers views of the Mississippi River, Lake Onalaska, the Minnesota Bluffs, and the cities of Onalaska and La Crosse. Segment O of the proposed Badger-Coulee line would impact the scenic views of the region, and the number of park/greenway visitors, both residents and tourists.

Looking at Segment O, the construction of this high voltage power line would have a detrimental impact on decades of planning which the City of Onalaska has invested in to protecting the environmental, scenic and recreational characteristics of Onalaska's blufflands.

Are there concerns that should be considered with respect to the potential impact of the proposed Segment "O" of the Badger Coulee Line on existing and planned land use and development in the City of Onalaska?

The majority of land uses in the City of Onalaska, adjacent to the HWY 53 and I-90 corridors, are residential and commercial. Commercial developments in this corridor include a significant amount of the greater La Crosse area's business, shopping and office areas. Within 300-feet of the proposed Badger Coulee Transmission line, the City of Onalaska has \$32,336,900 in commercial property value, which also includes approximately 175-acres of undeveloped/agricultural

holding land. The majority of all new commercial development in Onalaska will occur on vacant properties along Segment O of the Badger-Coulee transmission line including around USH 53 and County Highway OT, along Century Place; Abbey Road, which parallels USH 53; Sand Lake Road and USH 53; Theater Road, Midwest Drive, and I-90; and North Kinney Coulee Road which runs parallel to I-90. The Badger-Coulee transmission line will have varying levels of negative impacts on these properties, depending on location and proximity to the high-voltage transmission line. In the last 5 years, areas along Subsegments O4 and O5, have experienced approximately \$31.2 million in new commercial construction including Gunderson Health System's Medical Center Campus, Shephard of the Hills Lutheran Church, Springbrook Assisted Living Facility expansions, a facility with over 100 living units and La Crosse Beverage, a 90,000 square foot bottle distribution facility.

The City of Onalaska has invested a great amount of time and efforts promoting economic development, which could be slowed if Segment O of the Badger-Coulee is chosen. Two of the goals of the City of Onalaska Comprehensive Plan are to create a healthy City with a high quality of life to attract and retain a creative, skilled labor force, and to strengthen and enhance existing business districts. If the Southern Route is chosen, years of planning, infrastructure investment for highest and best uses, and goodwill with residents, the development and business communities could be undone.

The two largest vacant land areas for development as commercial districts which would be negatively impacted are the Menards/Elmwood Master Plan area

located off Sand Lake Road and USH 53, and the Elmwood Business Park located off Theater Road and I-90.

The City of Onalaska has developed a long-range planning strategy for the redevelopment of this area with the Menards/Elmwood Master Plan. This area incorporates approximately 135-acres of buildable land and 275-acres when including blufflands. This area is centrally located and highly visible in Onalaska's urban growth area. The purpose of this strategy is to create a mix of uses: commercial/service, retail, corporate office, and mixed density residential, all arranged around a neighborhood model that would have a positive influence on the city as a whole and would result in greater economic gain from job creation, tax base, an increase in property values and investment, and labor force retention and attraction.

Within this area, Mayo Clinic Health System recently purchased 187-acres, with approximately 75-acres of buildable land, which is planned to be developed as Mayo Clinic Health System expands their healthcare services (e.g. hospital, clinic, care facility) to the region. The proposed Badger-Coulee transmission line would significantly impact how the site is laid-out and build-out, because an easement for the Badger-Coulee line would further limit the buildable area. Assuming a 120-foot wide right-of-way for the transmission line, the easement would limit the development of approximately 2.8-acres of the 75-acre buildable site, as typically buildings are prohibited from being constructed within powerline easement areas. Another challenge that the Badger-Coulee line would bring to this property is the timing and layout of the construction activities. With such a large site being

developed additional utility and roadway infrastructure will need to be added to serve the site, which will occur before the larger site development occurs.

North of the property acquired by Mayo Clinic Health Systems, along Sand Lake Road, is an 80-acre tract of land owned by Elmwood Partners Limited Partnership. This site is planned to be developed in parallel to Mayo Clinic Health Systems with a mix of commercial and residential uses. If Segment O is chosen for the Badger-Coulee transmission line, it would reduce the marketability and development potential of the Menards/Elmwood Master Plan area, as businesses would ultimately locate in areas that will not have the negative perceptions and which would be more aesthetically pleasing.

The other commercial district which would be negatively impacted is the Elmwood Business Park off Theater Road and I-90. This district is one of the City's newest commercial development areas and much of the City's newest commercial growth has been in this area. If Segment O is selected the Badger-Coulee transmission line would run along I-90, parallel to this newly developed area. Due to constraints with the underpass at Theater Road, the transmission line would require a pole outside of the I-90 right-of-way, which will run the transmission line over three highly valuable development sites. One site was developed by Bremer Bank in 2014 on west side of Theater Road. The high-voltage transmission line would run approximately 57-foot from the newly constructed building. The other two sites are located on the east side of Theater Road and are owned by Weber Holdings, LLS and Midwest Security Life Insurance Company/United Health Group MN. Assuming a 120-foot wide right-of-way for the high-voltage transmission line,

the easement would limit the development of approximately 1.9-acres of the western 6-acre site (Weber) and 1.2-acres of the 5.2-acre site (Midwest Security). In this easement area, the construction of buildings would be prohibited, the type of landscaping would be limited and other site modifications would need to be made to ensure appropriate traffic flow through the site. Land in this corridor is retailing for approximately \$12-15 a square foot.

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Looking at all the properties in the Elmwood Business Park, outside of the 2 sites mentioned above, there are at least 11 vacant properties which are highly marketable and desired commercial locations, without Segment O being built. Segment O runs along I-90 the entire length of the Business Park including over four undeveloped parcels. The perceived negative effect of the transmission line along with the unsightly poles could stunt growth and lower property values in this prime development area. Visibility and proximity to I-90 has proven to be important for developments that have occurred in this Business Park. The proposed transmission lines would affect visibility to businesses and commercial signage. This may have the effect of driving business and development out of the City of Onalaska to other area business districts that are not encumbered by high-voltage transmission lines. If development slows in these areas, it could affect the many businesses already in those areas resulting in a loss of business as consumers choose to take their business elsewhere, away from the power lines. The City of Onalaska relies on these businesses and new development to fund City operations, initiatives to improve the City and the quality of life for its residents.

Additional land use impacts that would occur if Segment 0 is selected is the
disturbance of archeological sensitive areas. The City of Onalaska has, through the
Unified Development Code, designated Archeological Districts in several locations,
which include a much larger land area than the 9 archeological sites that were
identified in the Cultural Resources Assessment of the joint application for the
Badger-Coulee transmission line. The City of Onalaska requires that Archaeological
Surveys be completed by a regional qualified archaeologist prior to disturbances
and that the archaeologist is granted uninhibited access to the site during ground
disturbing activities and after archaeological artifacts are found. The ordinance also
identifies that any artifacts found would remain the property of the land owner
unless the owner relinquishes ownership of the artifacts to the Mississippi Valley
Archaeology Center as a public repository. The regional qualified archaeologist will
need to provide an itemized inventory report of all artifacts following such removal.
Any human remains discovered will need to be dealt with in accordance with
applicable state and federal law. The City of Onalaska values its cultural resources
and has adopted these land use restrictions to safeguard the City's historic,
prehistoric and cultural heritage, as embodied by the Archeological Districts and
their protections.
What measures has the City of Onalaska taken in the past with respect to Bluffland
Protection and cell phone towers or other utility structures that may interfere with
the scenic beauty of the Blufflands?
The City of Onalaska has taken a very proactive position as far as design,
anothetics and placement of telecommunication structures and towers in Onalaska

Q:

A:

to minimize adverse visual effects. The City of Onalaska Unified Development Code requires that proposed or modified towers be designed to blend into the surrounding environment through the use of color and camouflaging architectural treatment, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration and be of a monopole design.

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The following are two examples of cell phone tower construction approved by the City of Onalaska with design standards and compatibility with surrounding land uses and the environment as a key component of the approval consideration. An Ariadign cell phone tower was constructed on the west side of USH 53, between I-90 and Main Street near Luther High School. This cell tower was designed as a stealth flag pole. This tower is approximately 70-feet tall and was limited in height so as to not exceed the La Crosse Municipal Airport Overlay Zoning District's Height Limitations. An US Cellular cell phone tower is also located on the west side of USH 53, near the Sand Lake Road intersection with USH 53. This cell phone tower was also built as a stealth flag pole. The tower is approximately 100-feet in height, and is also limited in height so as to not exceed the La Crosse Municipal Airport Overlay Zoning District's Height Limitations. In addition to careful oversight of the design of cell phone towers, the City of Onalaska has historically also taken measures to ensure that distribution of powerlines are designed to blend into the surrounding environment. The City of Onalaska has worked with Dairyland Power Cooperative to provide architectural

1		treatments and to paint powerline poles a light blue so as to camouflage the poles
2		and to better blend into Onalaska's blufflands and scenic beauty.
3	Q:	Will the proposed Segment "O" of the Badger Coulee Line run through the City of
4		Onalaska's Airport Overlay Zoning District?
5	A:	Yes.
6	Q:	What is the purpose of the Onalaska Airport Overlay Zoning District?
7	A:	The La Crosse Municipal Airport lies west of the City of Onalaska, however two of
8		the Airport's four runway approach surfaces lie within the same area proposed for
9		the Badger-Coulee transmission line. State Statutes allows municipalities to
10		regulate all properties within 3-miles of the La Crosse Municipal Airport property
11		lines. Both the City of Onalaska and City of La Crosse adopted an Airport Overlay
12		Zoning District (AOZ) to regulate within the 3-mile area of the La Crosse Municipal
13		Airport. The City of Onalaska enforces the ordinance and height limitations adopted
14		by Onalaska's Common Council through the Unified Development Code, to protect
15		public safety, both on the ground and in the air.
16		The purpose of the City of Onalaska AOZ is to restrict the height of structures
17		and objects of natural growth, concentrations of people, visual obstructions (smoke,
18		steam, dust, etc.), electrical and navigational interference, noise sensitive land uses,
19		and wildlife and bird attractants and to restrict building sites, placement of
20		structures, and land uses by separating conflicting land uses and prohibiting certain
21		land uses that are detrimental to airport operations, navigable airspace, and the

Airport within the City of Onalaska 3-mile jurisdictional boundary of the AOZD.

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One of the regulatory protections of the Airport Overlay Zoning District are
height limitations which establish a maximum height for all structures within 3-
miles of the airport. An adopted "La Crosse Municipal Airport Height Limitation
Zoning Map" identifies geographical cells and associated elevations of the maximum
permissible height above mean sea level (MSL), which buildings, structures, objects
or vegetation in that cell cannot exceed. Segment 0 will run through areas within
the Airport Overlay Zoning District and structures within this district will be
restricted to a maximum height as established by these zoning regulations.
I've reviewed the correspondence from the FAA which was part of Exhibit H of the
Joint Application and see a challenge with transmission line structures O-10 through
O-15 and FAA's determination of a "notice of presumed hazard." I compared the
FAA correspondence with the maps from ATC titled "City of Onalaska Document
Request Floodplain and Preliminary Structure locations" dated October 2014and
with City of Onalaska parcel records and aerial photography. There are several
instances where the FAA has made a "determination of no hazard to air navigation"
for a number of transmission line structures, however the maximum height cited by
the FAA is different than the height limitations established by the "La Crosse
Municipal Airport Height Limitation Zoning Map." The LaCrosse Municipal Airport
Overlay Zoning District (AOZ) is more restrictive than FAA height limitations in
certain areas as the AOZ is intended to protect future air approaches whereas the
FAA only protects current airspace. FAA determinations may allow a structure, such
as a transmission line pole, because it doesn't impact a current approach, however

1		the structure may impact a future approach which local regulations are intended to
2		protect.
3		Between transmission pole structures O-25 and O-34 the AOZ is more restrictive
4		than the FAA, which will result in maximum structure heights between 81-feet and
5		100-feet. Between transmission pole structures 0-35 and 0-41 the FAA is more
6		restrictive than the AOZ, which will result in maximum structure heights between
7		54-feet and 107-feet. The AOZ is more restrictive than the FAA on transmission pole
8		structure 0-42, which will result in maximum structure height of 82-feet.
9		Between transmission pole structures O-43 and O-45 the FAA is more restrictive
10		than the AOZ, which will result in maximum structure heights between 91-feet and
11		119-feet. Between transmission pole structures 0-46 and 0-47 the AOZ is more
12		restrictive than the FAA, which will result in maximum structure height of 83-feet.
13		For transmission pole structures 0-48, 0-49, and 0-50 the FAA is more restrictive
14		than the AOZ, which will allow the proposed structure heights of between 135-feet
15		and 145-feet. For transmission pole structures 0-51 and 0-52 the AOZ is more
16		restrictive than the FAA resulting in maximum structure heights of 80-feet to 81-
17		feet.
18	Q:	What if any effect or potential impacts could that have?
19	A:	With the stated impacts of the LaCrosse Municipal Airport Overlay Zoning District
20		(AOZ), shorter transmission pole structures will likely result in a greater quantity of
21		pole structures to span the necessary distances. Additionally with shorter poles,
22		verification will be necessary to ensure that appropriate ground clearances will be
23		met to avoid negative impacts on adjacent residences and commercial properties.

1		with more poles, more failu areas especially commercial developments, would be
2		encumbered with the transmission lines serving as a visual obstruction to their
3		development. Additionally, with more poles, there will be more conflicts with
4		existing underground utilities and options for the future design and realignment of
5		the USH 53/ Sand Lake Road intersection and East Main Street/ Green Coulee
6		intersection will be further limited, and costs for City infrastructure projects will be
7		significantly greater.
8	Q:	If Segment "O" is chosen, could the siting and placement of the transmission line and
9		of any poles impact existing communications structures or be within the fall zone of
10		any cell phone towers in the City of Onalaska and what if any potential impact could
11		that have?
12	A:	The cell phone tower with the closest proximity to the proposed Badger-Coulee
13		transmission line in the city of Onalaska is a 120' T-Mobile cell phone tower, which
14		is designed as a stealth flag pole. It is sited 240' east of Germann Court and
15		approximately 134-feet from the transmission line centerline. Assuming a fall zone
16		of 33% of the total tower's 120-foot total height, the cell phone tower would need a
17		clearance of at least 40-feet for the fall zone. Siting of the proposed Badger-Coulee
18		transmission line would need to take this into consideration. However, concerns
19		about potential impacts to the cell tower's signals and electronics have been raised
20		by the City's Plan Commission <del>.</del>
21		The Joint Application, Appendix K includes a Communication Facility Impact Study-
22		Phase I which reviews existing FCC licensed communication facilities within 10km
23		of the proposed Badger-Coulee transmission line. Seven cell phone/ communication

towers located in the city of Onalaska are not included in this analysis. They include: An Alltel/Verizon cell phone tower/stealth flag pole located near 252 Mason Street; a US Cellular cell phone tower/stealth flag pole located near 1109 Venture Place; a cell phone tower/stealth flag pole located near N5558 Commerce Road; an Ariadigm cell phone tower/stealth flag pole located near Luther High School and 524 Oak Forest Drive; a cell phone tower/stealth light pole near 9348 State Road 16, in the Ciatti's parking lot; a Centurytel radio tower located at 580 Lester Avenue; and a communications tower located near the LaCrosse County Landfill at 6500 State Road 16.

The Communication Facility Impact Study-Phase I also identifies that the cell phone tower at 5538 Abbey Road, in the Town of Onalaska, is less than 500-feet from the proposed transmission line, which needs further study and analysis so as to avoid transferred voltages to the communication structure's grounding systems. As noted above, not all the cell phone towers which currently exist in the city of Onalaska are noted in the Study. In addition to the T-Mobile cell phone tower located along I-90 and Germann Court, listed above which isn't in the Study, the following cell phone towers are also located within 500-feet of the proposed centerline of the Badger-Coulee transmission line. An AT&T cell phone tower located adjacent to a City of Onalaska water reservoir, on the east side of USH 53, between Sand Lake Road and Main Street. This tower will be approximately 435-feet from the centerline of the proposed transmission line. An Ariadigm cell tower located on the west side of USH 53, between I-90 and Main Street near Luther High

1		School. This tower will be approximately 500-feet from the centerline of the
2		proposed transmission line.
3	Q:	What, if any, problems have businesses or residences experienced with respect to
4		induced voltage in the City of Onalaska and what affect, if any, could the proposed
5		Segment "O" of the Badger Coulee line have on induced voltage problems in the City
6		of Onalaska?
7	A:	The City's Building Inspection Department was involved with induced voltage issues
8		for properties in the Chestnut Estates subdivision approximately 10-years ago.
9		Residential property owners at 1444 and 1436 Cliffview Lane, located
10		approximately 50-feet from the 161kV Dairyland Power Cooperative electrical line,
11		were having issues with induced voltage. A contractor was working from a lull and
12		installing aluminum soffit on a new house which did not yet have electrical service
13		installed; when the contractor would place a the piece of soffit onto the house, he
14		would receive a shock. Around the same time period, an adjacent property owner
15		was hanging Christmas decorations on the house, was working from a ladder, and
16		similarly was getting shocked.
17		Based on these past issues, I am concerned about the impacts the proposed 345kV
18		transmission line will have on the 62 residential structures (with 90 dwelling units)
19		and 22 commercial properties that currently exist within 300-feet or less of the
20		proposed Badger-Coulee centerline. Of these properties, 3 residential dwellings on
21		Esther Drive, 2 commercial buildings on East Main Street, 1 commercial building on
22		Theater Road, and the Childfirst daycare play-area (off East Main Street) will be less
23		than 100-feet from the proposed centerline of the high-voltage transmission line. Of

additional concern, are the experiences that the Wisconsin Department of Transportation has had with an increase in induced voltage in streetlights, traffic signals, and overhead signs after the Rockdale to West Middleton transmission line was installed on the Madison Beltline Highway and USH 14. These issues raise concerns about the protection of City of Onalaska employees who change street lights, traffic signal lights, and street signs.

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The USH 53 and I-90 corridors currently have 6 overhead signs which direct traffic flow, plus an additional 18 freestanding signs which primarily identify exit information, located in the USH 53 and I-90 rights-of-way on the same side of the highway as the proposed transmission line. The corridor has a number of traffic signals, street lights, and at least 15 freestanding commercial signs which are well within 300-feet. The majority of these 15 commercial freestanding signs are well within 100-feet of the proposed transmission line centerline and one sign is approximately 12-feet from the centerline which raise concerns that these signs could be susceptible to induced voltage. Are any of the areas in the proposed route for Segment "O" within the flood plain and what, if any, challenges does that create for the City of Onalaska or Applicants? Segment O of the proposed Badger-Coulee transmission line is projected to run through a portion of the City of Onalaska's Sandalwood Park, located off Esther Drive, northeast of the USH 53 and I-90 intersection. This park was developed as a neighborhood park to serve residents living south of County Highway OS and east of Main Street. Amenities include a playground, hard surface trails, a skating rink, and a basketball court. Portions of the Sandalwood Park are located within the 100-year

and 500-year floodplain. The City of Onalaska adopted a Floodplain Zoning
Ordinance, as part of the City of Onalaska Unified Development Code to ensure that
all new construction is designed to minimize flood damage to adjacent properties.

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Specific impacts will need to be prepared by the applicant indicating what the proposed construction activities and woody vegetation removal activities within a 120-foot right-of-way strip through this park will have on the 100-year and 500year floodplains areas. Maintaining woody vegetation within a floodplain is especially important as trees and other vegetation directly reduce flood hazards as they allow greater water infiltration through the root system, reducing water runoff and by slowing the rate of water flow. The more trees and vegetation in a flood zone decrease the speed of water flow allowing time for water to be absorbed into soil, thus reducing the amount of flooding. What does the Applicant's data regarding the number of residential and commercial or industrial buildings within a given distance from each proposed route's center line tell vou? In reviewing the maps from ATC titled "City of Onalaska Document Request Floodplain and Preliminary Structure locations" dated October 2014, I compared the transmission line pole locations with City of Onalaska parcel records and aerial photography. (It should be noted that the distances may not be exact, but are approximations based on the best available data.) From this information I was able to determine the impact on City of Onalaska properties. Overall, Segment O through Onalaska would impact a significant number of existing residences and businesses.

Within 300-feet or less of the proposed high-voltage transmission line currently

there are 66 residential structures with a total of 108 dwelling units as well as 26 commercial buildings.

Following are the specific locations of these homes and business, starting at the northern extent of the proposed transmission's line impact on the City of Onalaska, along USH 35.On the northern end of Abbey Road, the City has issued Occupancy Permits in the past 6-months for a 13-unit multi-family housing development (located within 2 buildings) which is approximately 120-feet from the estimated centerline of the transmission line. Immediately south of this development, a 32-unit multi-family development has plans prepared which are under City review, but has not proceeded with construction; this development would be located approximately 120-feet from the centerline of the transmission line. Two additional vacant lots appropriately zoned and ready for development as multi-family residential housing also are within 300-feet of the transmission line and will need to adjust their development plans because of the Badger-Coulee transmission line if Segment O is chosen.

Across from USH 53, 3 residences on Flint Court are located within 300-feet of the transmission line centerline.

South of the intersection of USH 53 and East Avenue, 2 duplexes are within 250 to 300-feet of the transmission line centerline. In the Chestnut Estates neighborhood, 15 homes are within 200-feet of the transmission line centerline, 2 additional homes are within 250-feet of the transmission line centerline. Also in this area are five commercial warehousing structures that are within 150-feet and a

manufacturing facility that produces forced air heaters within 220-feet from the transmission line centerline.

On the east side of USH 53, located on Franklin Street, 12 duplexes (for a total of 30-residential units) are approximately 300-feet from the transmission line centerline. South of Rider's Club Road, on the west side of USH 53, off Oak Ave North and Parkridge Place, 4 homes are between 130-feet and 150-feet; 2 homes are between 150-feet and 200-feet, and 2 homes are between 230-feet and 265-feet from the transmission line centerline.

An existing daycare, Childfirst is located at 1828 East Main Street, which abuts the east side of USH 53. This commercial structure is approximately 160-feet from the proposed transmission line centerline however the children's outdoor play area is only 80-feet from the centerline. It should be noted that two additional daycares in the City of Onalaska are located within 500-feet of the proposed transmission line centerline. Shepherd's Flock Preschool at 1215 Redwood Street is within 405-feet of the proposed centerline, while the outdoor playarea is within 340-feet. The Education Station at 903 Riders Club Road is within 475-feet of the proposed centerline.

Back along the East Main Street area, there are an additional 2 commercial structures which are less than 100-feet from the proposed transmission centerline, 2 commercial structures are between 100 and 150-feet, and 4 commercial structures less than 250-feet. South of this commercial area, along Esther Drive and Germann Drive, 3 homes are approximately 85-feet, 90-feet and 95-feet from the proposed transmission line centerline. An additional 3 homes are between 100 and 150-feet,

1		6 homes are between 150 and 200-feet; 4 homes are between 200 and 250-feet;
2		and 3 homes are between 250 and 300-feet from the proposed transmission line
3		centerline. In the residential area south of I-90 2 homes are between 200 and 250-
4		feet, and 1 home is between 250 and 300-feet from the proposed transmission line
5		centerline. Additionally, 3 multi-family buildings are within 250 to 300-feet from
6		the transmission line centerline; within these 3 multi-family buildings are 20
7		residential units.
8		Following I-90 to the east, 11 commercial buildings are within 300-feet of the
9		proposed transmission line centerline. This includes three hotels, which are
10		between 100 and 150-feet from the proposed centerline.
11	Q:	What does the Applicant's data regarding the use of existing corridor for Segment
12		"O" and Segment "P & N" tell you?
13	A:	Overall Segment O will require more right-of-way for the transmission line to be
14		acquired, as compared to the amount of existing right-of-way for Segments P and N.
15		Segments P and N utilize existing right-of-way for 92% of the length of the route,
16		while Segment O will utilize existing right-of-way for 57% of the length of the route.
17		Looking at the total land area which will need to be acquired for right-of-way,
18		Segment 0 will require that 65% of the right-of-way area be newly acquired.
19		Segments P and N will only require the acquisition of 29% of the right-of-way area
20		be newly acquired.
21	Q:	What, if any, issues would be remedied by burying the high voltage transmission
22		line for the five (5) miles that it is proposed to run through the City of Onalaska
23		along U.S. Highway53 and Interstate 90 from roughly the intersection of County

1		Road OT and U.S. Highway 53 along U.S. Highway 53 and Interstate 90 until
2		Interstate 90 intersects with State Road 16?
3	A:	If the proposed high-voltage transmission line was buried through the City of
4		Onalaska, there would be significantly less negative impacts on land uses, including
5		existing residences and businesses, on new development that is considering
6		construction along the USH 53 and I-90 corridors, on tourism and the recreational
7		enjoyment of Onalaska's unique Greenway Park and Trail System through the bluffs

and to our water resources including the La Crosse River valley.

Dood OT and H.C. Highway F2 along H.C. Highway F2 and Interests Of workill

Developers and property owners who are considering the commercial development of properties along USH 53 and I-90, including but not limited to Abbey Road, Sand Lake Road, Theatre Road, Midwest Drive, N. Kinney Coulee Road, are pausing their development plans until a decision is made about the Badger-Coulee line's route. If the route is chosen to include Segment O through Onalaska with above ground transmission lines, I believe we'll see developers and businesses reconsider locating in this corridor and/or changing the types of uses and businesses that would have otherwise considered the locations. The above ground transmission line will have an impact on decisions made by developers about the highest and best use for properties along the route. On the other hand, if the transmission line is buried through Onalaska, I believe this would not have as much impact on the development of sites because the concerns about aesthetics, viewsheds, impacts to property values, the loss of customers, induced voltage, health impacts of employees, etc. would be substantially lessened.

Are you sponsoring any exhibits?

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- 1 A: No.
- 2 Q: Does this complete your direct testimony?
- 3 A: Yes.