BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

TESTIMONY

OF

JEDDIE AYLETT

ON BEHALF OF

WILLOW CREEK DAIRY

September 28, 2017
Q. Please state your name and business address.
A. My name is Jeddie Aylett. My business address is 73956 Homestead Lane, Boardman OR, 97818.

Q. Will you please provide a brief description of your current job and an overview of your background?
A. I am currently employed by Greg te Velde as the farm manager of Lost Valley Farm. As the manager, I oversee all aspects of the agricultural operations on the farm. I have been working for Mr. te Velde for almost two years. Prior to that time, I managed portions of the Three Mile Farm for eleven years. I have a B.S. in Crop and Soil Sciences from Oregon State University.

Q. On whose behalf are you appearing in this proceeding?
A. My testimony is on behalf of Mr. te Velde and Lost Valley Farm. My understanding is that the parties have referred to Mr. te Velde’s Lost Valley Farm operations as the “Willow Creek Dairy” or “dairy” so I will use that same wording in my testimony.

Q. What is the purpose of your testimony?
A. I will provide an overview of the Willow Creek Dairy’s operations and respond to the testimony of Thomas Wolff.

Q. Can you describe the role of the agricultural operations you oversee in the context of the overall operations of Willow Creek Dairy?
A. The dairy is made up of several different components that operate in what I call a “closed loop” system. The agricultural portion of the operations is used to grow crops. Those crops serve as feed for the dairy cows. The dairy portion of the operations includes the cows and the actual dairy where the cows are milked. As part of that process, the cows generate a large amount of manure. The liquid from the manure is then sent back to the agricultural operations where it is used for irrigation and fertilizer for growing the crops.

Q. What is your understanding of the dispute in this case?

TESTIMONY OF JEDDIE AYLETT
A. I am aware that Umatilla Electric Cooperative ("UEC") and Columbia Basin Electric Cooperative ("Columbia Basin") each have designated areas in which they provide electric service and that the dairy straddles the line between those two areas. My understanding of the dispute is that Columbia Basin believes it has the right to serve any electrical loads that are located on its side of that line and that it has filed a complaint seeking confirmation of that right.

Q. Please describe the portion of the dairy operation that is on Columbia Basin’s side of the line you just mentioned.

A. We grow our crops using a center pivot irrigation process. That process is basically an overhead sprinkler irrigation system consisting of various pipes supported by trusses, mounted on wheels. The pipes distribute water, chemicals, and fertilizer from the pivot point at the center of the circle. The wheels allow that equipment to rotate around that center pivot, creating a circular pattern or “crop circle.” On the Columbia Basin side of the line we currently have six crop circles with plans to add one more.

Q. How many crop circles in total are part of the dairy operations?

A. We currently have 29 crop circles and will have a total of 49 circles when the farm is complete. Of that total, only seven circles will not be in UEC’s service area – the six existing crop circles I just mentioned and one new one we will add.

Q. Do the crops from all 49 circles stay at the dairy as feed for the dairy cows?

A. Yes.

Q. You stated you have plans to construct one more crop circle on the Columbia Basin side of the line; what is in that area now?

A. That area is currently planted with poplar trees.

Q. Are those trees part of the dairy operation?

A. No. The trees were planted before Mr. te Velde owned the property. As a condition of the purchase, the prior owner (Boardman Tree Farm) leases back some of the land that still contains poplar trees. When one of the stands of trees is harvested, that portion of the lease ends.
Q. When will the trees in the Columbia Basin area be harvested?
A. The exact date is not known and is controlled by Boardman Tree Farm. My understanding is that the trees are usually harvested about 14 years after planting. The original planned date for harvesting the trees in Columbia Basin’s area is 2025. However, those dates have not been adhered to and the trees are being harvested sooner than planned. For example, several plantings from 2005, 2006 and 2007 have already been harvested even though the original plan would have called for harvesting those trees in 2019, 2020, and 2021. I believe the trees in the Columbia Basin area could be harvested at any time and that they will be harvested no later than 2020.

Q. Will the dairy use that area once the trees are harvested?
A. Yes. We already have the plans in place to install the center pivot irrigation system in that area. This area is referred to as Circle 616. This area will be integrated into the dairy’s operation. In fact, I have already begun making preparations for installing a center pivot in that area in anticipation that the trees will be harvested soon.

Q. Are you familiar with the electric service needs for the dairy?
A. Yes. There are several components of the dairy operation that require electrical service. Although I am not as familiar with the specific electrical needs of the portions of the dairy related to the cows and the milking operations, I am aware that those facilities require electrical service. I am, however, very familiar with the electrical needs of the agricultural portions of the operation.

Q. Please describe those electrical service needs.
A. The dairy’s electrical use starts at the irrigation canal where we take water from the irrigation district. The dairy owns multiple pumps on the canal for that purpose. The pumps are all located in UEC’s area and require a large amount of electric power to operate. They are also
a critical piece of the dairy operation because we have to coordinate our water outtake with the irrigation district and must be able to take all of the water we agree to take during the period of time that we agreed to take it. This coordination happens on a daily basis.

After the water is pumped from the canal, it flows through the pen stock—the main water pipes—toward the various places the water will be used. Along the way, we have different facilities that also require electrical service. For example, there are booster pumps needed to carry the water longer distances. There are also variable frequency drives (“VFD”) that help us maintain the pressure levels in the pen stock. All of the booster pumps and VFDs are also located in UEC’s area.

After the water leaves the final booster pump, there is no additional electrical service required to move the water. However, there is still a need for power at the irrigation pivot. We use electric motors to drive the wheels around the center pivot.

Q. Of the facilities you just described that require electrical service, which ones are located in Columbia Basin’s area?
A. Only the motors that drive the six crop circles in Columbia Basin’s area are on Columbia Basin’s side of the line. Those motors are all connected at the same point, which is referred to on our figures as Cluster 609 and which receives its power from a service point referred to as Cluster 608.

Q. Do the poplar trees also require electrical service?
A. No. The tree farm does make use of some of the same irrigation facilities as the dairy. For example, the same water that comes through our canal pumps and booster pumps eventually go to the poplar stand in the Circle 616 area. However, the trees use drip irrigation rather than motors like the pivot irrigation, so there is no electrical load at the point of irrigation for the poplar trees.

Q. Does this mean there is no electrical load associated with the trees on Columbia Basin’s side of the line?
A. That is correct, with one exception. I have noticed that there is a 110-volt line that runs to the Circle 616 area and which the tree farm apparently uses on a piece of equipment that monitors water flow. The dairy does not use that equipment or any portion of that 110-volt line and that line is temporary, as it will be removed when the trees are harvested and the pivot irrigation system is installed in that area.

Q. You have described a lot of equipment you use as part of the dairy’s farming operation; can you describe how important the electrical service is to the operation?

A. The electrical service is extremely important to the operation of the farm. Our farm is extremely large and operates differently than smaller farms and differently than larger farms that use traditional farming methods. We are much more high-tech than a traditional farming operation and every aspect of the farm is highly coordinated. As I mentioned earlier, even the amount of water we take from the irrigation district must be coordinated and monitored on a consistent basis. From the point we take the water out of the canal, to the point it leaves the irrigation pivots, everything must be operated together and in a predictable fashion. This means we require adequate and reliable electrical service. The power we use operates the pumps, the VDFs, the pivots, and all of our monitoring equipment, each of which is just one component of that coordinated system.

Q. Have you considered having Columbia Basin serve some of your facilities while UEC serves the others?

A. I have considered it only in the context that Columbia Basin offered to provide partial service to us, but I have not considered it as a workable option. As I just noted, every aspect of the operation is highly coordinated with every other aspect. This means that when parts of the system are operating, other parts of the system need to be operating at the same time. Just as importantly, if part of the system goes down, all parts of the system should go down together. It would be an unacceptable risk at the dairy to take service from two utilities and have one of the utilities have an outage while the other one remains on.
Q. Can you provide some examples of things that could go wrong if there was an outage on only part of the system?

A. There are a couple of scenarios that quickly come to mind. For example, if the power to a pivot went out, but the power to the water pumps and boosters stayed on, the water would continue to flow in the same location on a particular crop. This could result in crop damage, mainline damage, irrigation district canal overflowing, and also is a waste of water, which has a negative economic and environmental impact. Another example relates to how we use chemicals on the crops. The chemicals have to be mixed into the water, but they will eventually precipitate out if the solution is not used. The precipitate can be re-mixed, but it loses its efficacy. The chemicals also have to be applied at a specific time in a specific location. As outages occur, there can be major disruptions to the chemical application process, and those disruptions would be magnified if we are also having to worry about having to deal with reacting to a partial outage. Again, the consequences are both physical – to the system and the crops – and monetary because of lost time, production, and efficiencies.

Q. Have you reviewed the testimony of Thomas Wolff submitted on behalf of Columbia Basin?

A. I have.

Q. Mr. Wolff points out that Willow Creek Dairy has approximately thirty different service points, with a similar number of meters, with various different rates; why are there so many service points and meters?

A. It is important to keep in mind how our system is being developed. Mr. te Velde bought property that already had facilities on it, including water and electric facilities. As we have developed the Willow Creek Dairy, we are building some new facilities, but we are also trying to make use of the existing facilities. If we were starting from scratch we may have taken a different approach, such as using a master meter at UEC’s system, but that did not make economic sense in light of the existing facilities that were already on the property.
Q. Does the type of rate schedule each meter is on make a difference to your overall operation?

A. In my opinion, no. Again, we are building our system in part by using facilities that are already in place. Depending on the type of power that flows through a particular transformer or meter, UEC determines what rate schedule is appropriate for that meter and they are apparently different in some locations. However, the rate schedule does not determine what part of the process is associated with at that point of service.

Q. What do you mean by that?

A. Take for example Canal Station 6A. The pump at that canal station takes water from the canal that eventually goes to the six crop circles in Columbia Basin’s area. The meter at the canal station uses rate schedule 49A, and the meter at Cluster 608 that runs the pivots is on rate schedule 48A. Now compare that to Canal Station 4A, which carries water to pivots that are served by the same meter as the 406/410 Booster pump. Canal Station 4A takes service under rate schedule 48A, and the pivots take service under rate schedule 47A. So, the same process – canal pumps carrying water to center pivots – happens under different rate schedules simply because of the location they happen to be in. The rate schedules themselves are therefore not determinative of the process or processes that are occurring in that location and the number and type of rate schedules we have is irrelevant.

Q. Do you agree with Mr. Wolff’s testimony asserting that Lindsay Farms demonstrates a farm can take service from two utilities without any issues?

A. No. Willow Creek Dairy is nothing like Lindsay Farms. As I noted earlier, smaller farms, or farms using more traditional farming methods, do not have the same needs as a large farm with highly coordinated systems. It may not be a big deal to the owners of Lindsay Farms to have service from two different utilities, but that has no bearing on my operations at Willow Creek Dairy.

I would also like to point out that Lindsay Farms has flexibility that we do not. While
they get water from the canal through our dairy’s irrigation system, that does not happen all the
time, and Lindsay Farms has another water supply in the form of wells. If the power from UEC
were to go out and they could not get water through our system, they can isolate their irrigation
system and take water from their wells instead.

In fact, one of the reasons there is less disruption to Lindsay Farms is because the impacts
of the disruption are shifted to our dairy. This is not a hypothetical. About two weeks ago
Columbia Basin had an outage that affected Lindsay Farms. Lindsay Farms called me to have
me cut off their water so that it would not continue to flow to their pivots and cause the same
type of damage that I previously described. This was disruptive because the water we were
taking from the canal had already been scheduled and we were obligated to take it – we could not
simply let that same amount continue to flow in the canal. We therefore made several
operational changes to make sure we could use the same amount of water as scheduled. This
was a lot to manage and was very disruptive of our own operations, even though Lindsay Farms
was not impacted.

Q. Does this conclude your testimony?

A. Yes, it does.