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WCD/100  
Jeddie Aylett

**BEFORE THE**  
**PUBLIC UTILITY COMMISSION OF OREGON**

**TESTIMONY**  
**OF**  
**JEDDIE AYLETT**  
**ON BEHALF OF**  
**WILLOW CREEK DAIRY**

**September 28, 2017**

1 **Q. Please state your name and business address.**

2 A. My name is Jeddie Aylett. My business address is 73956 Homestead Lane, Boardman  
3 OR, 97818.

4 **Q. Will you please provide a brief description of your current job and an overview of**  
5 **your background?**

6 A. I am currently employed by Greg te Velde as the farm manager of Lost Valley Farm. As  
7 the manager, I oversee all aspects of the agricultural operations on the farm. I have been  
8 working for Mr. te Velde for almost two years. Prior to that time, I managed portions of the  
9 Three Mile Farm for eleven years. I have a B.S. in Crop and Soil Sciences from Oregon State  
10 University.

11 **Q. On whose behalf are you appearing in this proceeding?**

12 A. My testimony is on behalf of Mr. te Velde and Lost Valley Farm. My understanding is  
13 that the parties have referred to Mr. te Velde's Lost Valley Farm operations as the "Willow  
14 Creek Dairy" or "dairy" so I will use that same wording in my testimony.

15 **Q. What is the purpose of your testimony?**

16 A. I will provide an overview of the Willow Creek Dairy's operations and respond to the  
17 testimony of Thomas Wolff.

18 **Q. Can you describe the role of the agricultural operations you oversee in the context of**  
19 **the overall operations of Willow Creek Dairy?**

20 A. The dairy is made up of several different components that operate in what I call a "closed  
21 loop" system. The agricultural portion of the operations is used to grow crops. Those crops  
22 serve as feed for the dairy cows. The dairy portion of the operations includes the cows and the  
23 actual dairy where the cows are milked. As part of that process, the cows generate a large  
24 amount of manure. The liquid from the manure is then sent back to the agricultural operations  
25 where it is used for irrigation and fertilizer for growing the crops.

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

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

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

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

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

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

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

19 A. Yes.

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

22 A. That area is currently planted with poplar trees.

23 **Q. Are those trees part of the dairy operation?**

24 A. No. The trees were planted before Mr. te Velde owned the property. As a condition of  
25 the purchase, the prior owner (Boardman Tree Farm) leases back some of the land that still  
26 contains poplar trees. When one of the stands of trees is harvested, that portion of the lease ends

1 and then we convert that area to agriculture by installing a center pivot irrigation system in that  
2 area.

3 **Q. When will the trees in the Columbia Basin area be harvested?**

4 A. The exact date is not known and is controlled by Boardman Tree Farm. My  
5 understanding is that the trees are usually harvested about 14 years after planting. The original  
6 planned date for harvesting the trees in Columbia Basin's area is 2025. However, those dates  
7 have not been adhered to and the trees are being harvested sooner than planned. For example,  
8 several plantings from 2005, 2006 and 2007 have already been harvested even though the  
9 original plan would have called for harvesting those trees in 2019, 2020, and 2021. I believe the  
10 trees in the Columbia Basin area could be harvested at any time and that they will be harvested  
11 no later than 2020.

12 **Q. Will the dairy use that area once the trees are harvested?**

13 A. Yes. We already have the plans in place to install the center pivot irrigation system in  
14 that area. This area is referred to as Circle 616. This area will be integrated into the dairy's  
15 operation. In fact, I have already begun making preparations for installing a center pivot in that  
16 area in anticipation that the trees will be harvested soon.

17 **Q. Are you familiar with the electric service needs for the dairy?**

18 A. Yes. There are several components of the dairy operation that require electrical service.  
19 Although I am not as familiar with the specific electrical needs of the portions of the dairy  
20 related to the cows and the milking operations, I am aware that those facilities require electrical  
21 service. I am, however, very familiar with the electrical needs of the agricultural portions of the  
22 operation.

23 **Q. Please describe those electrical service needs.**

24 A. The dairy's electrical use starts at the irrigation canal where we take water from the  
25 irrigation district. The dairy owns multiple pumps on the canal for that purpose. The pumps are  
26 all located in UEC's area and require a large amount of electric power to operate. They are also

1 a critical piece of the dairy operation because we have to coordinate our water outtake with the  
2 irrigation district and must be able to take all of the water we agree to take during the period of  
3 time that we agreed to take it. This coordination happens on a daily basis.

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

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

13 **Q. Of the facilities you just described that require electrical service, which ones are**  
14 **located in Columbia Basin’s area?**

15 A. Only the motors that drive the six crop circles in Columbia Basin’s area are on Columbia  
16 Basin’s side of the line. Those motors are all connected at the same point, which is referred to  
17 on our figures as Cluster 609 and which receives its power from a service point referred to as  
18 Cluster 608.

19 **Q. Do the poplar trees also require electrical service?**

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

25 **Q. Does this mean there is no electrical load associated with the trees on Columbia**  
26 **Basin’s side of the line?**

1 A. That is correct, with one exception. I have noticed that there is a 110-volt line that runs  
2 to the Circle 616 area and which the tree farm apparently uses on a piece of equipment that  
3 monitors water flow. The dairy does not use that equipment or any portion of that 110-volt line  
4 and that line is temporary, as it will be removed when the trees are harvested and the pivot  
5 irrigation system is installed in that area.

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

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

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

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

1 **Q. Can you provide some examples of things that could go wrong if there was an**  
2 **outage on only part of the system?**

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

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

17 A. I have.

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

21 A. It is important to keep in mind how our system is being developed. Mr. te Velde bought  
22 property that already had facilities on it, including water and electric facilities. As we have  
23 developed the Willow Creek Dairy, we are building some new facilities, but we are also trying to  
24 make use of the existing facilities. If we were starting from scratch we may have taken a  
25 different approach, such as using a master meter at UEC's system, but that did not make  
26 economic sense in light of the existing facilities that were already on the property.

1 **Q. Does the type of rate schedule each meter is on make a difference to your overall**  
2 **operation?**

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

8 **Q. What do you mean by that?**

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

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

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

26 I would also like to point out that Lindsay Farms has flexibility that we do not. While



1 they get water from the canal through our dairy's irrigation system, that does not happen all the  
2 time, and Lindsay Farms has another water supply in the form of wells. If the power from UEC  
3 were to go out and they could not get water through our system, they can isolate their irrigation  
4 system and take water from their wells instead.

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

15 **Q. Does this conclude your testimony?**

16 A. Yes, it does.

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