



**Public Utility District No. 1
of
Pend Oreille County**

**Community
Network
System**

**Business Planning
Fundamental Leadership Beliefs**

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Life shrinks or expands in proportion to one's courage. —Anais Nin

Purpose of this Document

The deployment of public utility district next generation broadband utility services under a wholesale business model is problematic; there are no successful business models to follow. Additionally, there are substantial questions regarding the proper District role, if any, in delivering broadband services to our community.

Business model planning is complex and, of necessity, involves a look into the future. Crystal ball gazing is never an easy process, and will always leave some level of uncertainty in the mind of any reasonably prudent person.

The District currently finds itself at a position where we wish to create and evaluate a business plan for a possible wireless broadband deployment. While we recognize the inherent uncertainties in making future projections, most especially when there is little historical information to leverage, the process remains meaningful and helpful.

Today, as concerns broadband, not everyone at the District is headed down a common path. There is a divergence on fundamental beliefs, values, and resultant differences of opinion as to future direction. District staff feels a need to reevaluate certain decisions and ask ourselves some fundamental questions before proceeding further. Reexamining a few, key parameters now will greatly aid in the business planning process and reduce wasted work effort. We need to reduce some of the current divergence in opinions before we can effectively plan further.

There are no right or wrong answers to the questions we are asking ourselves here. While the answers may affect the District and our community, the questions are more to determine our core values and beliefs, and to some extent, our appetite for risk.

The fundamental issues raised here are a start; additional issues may develop that require answering. But this self-examination will tell us much about feasible directions, if any, in deploying broadband to our community as a widely available, affordable utility service. From this, we can move forward to mission statements, value statements, goals, strategies, and general business plans. We can then begin tailoring a business plan to address issues such as what infrastructure to utilize, how our wholesale model will work, cost and benefit analysis, our customer desires and beliefs, exit strategies, and so on.

We will either build our house, stone by stone, or decide not to build. Our business plans will be the foundation of our structure. Prior to the development of any business plan, we are first asking ourselves certain fundamental questions, and clarifying our values, in an attempt to avoid building our foundation on a bed of sand.

Have the courage to live. Anyone can die. —Robert Cody

Current Environment

The District has invested approximately \$4.5 million in communications infrastructure since our inception. This includes all Electric System communications, for both internal and community needs, and includes approximately \$300,000 dating prior to any fiber optic installation. Seattle City Light repaid the District for approximately \$1.5 million of this investment. We currently own backbone fiber infrastructure extending from Spokane to near the Canadian border. The District receives approximately half a million dollars a year in revenues from community broadband sales and is basically covering operations and maintenance costs. The net cash flow is not yet strong enough to repay investment.

The current system serves many internal needs of the District including SCADA, phone connectivity, facilitating of control area services, interconnectivity of our networked computing environment, and other purposes. We have not yet developed customer premise load control or broadband related automated meter reading.

The CN System has not been developed into an available utility service in the same sense as water and power are available to our community. The District has made connectivity available, on a wholesale basis using third party providers, but at a cost attractive only to larger organizations.

By State law, public utility districts have wholesale, but not retail, authority to provide broadband services to our communities. The underlying logic is public utility districts may install and provide infrastructure, under an open access model, for all retail service providers to use leading to an environment wherein the ultimate consumer receives the benefits of competition as multiple providers vie for the consumer's business. It remains unknown whether retail providers will drop their somewhat monopolistic and proprietary infrastructure models to embrace this type of competitive model.

Prior to developing the CN System, the District commissioned Bergman Telecom Consulting for a feasibility study. This \$42,500 study attempted to address the basic business question of broadband viability for Pend Oreille County. Specific contract requirements included inventory of existing and planned infrastructure and services; identification of alliances, partnerships and other appropriate working relationships; assessing the organizational and community situation and resources; conducting focus meetings; and developing a strategically phased financial and business plan.

At various times, District staff has attempted various cost benefits analysis and forecasts with varying degree of success. Each year a budget is prepared. Actual results are reported against that budget.

Most recently, the economic development council commissioned a \$100,000 study by Zero dB regarding the role of broadband in Pend Oreille County. This study had several deliverables, most specifically development of an intricate financial model for various types of fiber optic deployment within Pend Oreille County. The model reaffirmed

District expectations that county-wide fiber optic deployment would cost in the region of \$25 to \$30 million and that the business case was currently marginal, at best.

The District is conducting pilot projects on both fiber and wireless broadband. Wireless may have some attractiveness due to an anticipated lower initial infrastructure cost, although the operations and maintenance costs likely mirror a fiber optic system. The Board of Commissioners directed staff to prepare a business plan for a wireless model.

The District is also currently surveying all power customers to see how the community feels towards broadband and the role they see the District playing in that arena. This information should be available toward the end of the current year.

Regionally, broadband deployment by public utility districts in our state has developed into a troublesome road. Grant PUD deployed fiber aggressively several years ago. The program has stimulated considerable community turmoil and has recently been slowed by their Commission. Other less aggressive districts have experienced problems in deployment as a community service, due to various factors such as competition and low penetration / take rates. NoaNet is still experiencing negative cash flow.

However, certain public utility districts are experiencing somewhat better results. Deployment is proceeding on a fairly large-scale basis at Chelan. The Grays Harbor dark fiber program seems to be working well. Despite extremely vocal opposition, which is causing significant community turmoil at Grant, many of their staff and Commissioners report widespread underlying support for the fiber optic deployment program; the community turmoil is portrayed as the work of a small, but extremely vocal opposition.

If there is a public utility district success story out there today, it may be the District. Our net investment to date is a relatively low \$3 million, revenues are covering operating expenditures (although not yet repaying capital), and significant and undeniable community benefit has developed.

The local hospital is receiving advanced Ethernet service at a quarter their previous cost of the less robust T1 line. The District is the first public utility district in the state to build a cellular tower. The benefits of sharing broadband communications with our community are, to date, a significant success story, simply too numerous to list here. These benefits are extremely difficult to quantify in dollars and cents; however, it can be stated the District's broadband activities will, if they haven't already, actually save lives.

That may not be well known outside an informed few. Our success to date does not mean the District should move forward to a widely available broadband utility service. It is possible the District's role in bringing broadband to the general public is nearing completion. Future decision making processes will make that determination. However, even if the District stopped all new deployment today, we could justifiably consider our efforts and investment well done on behalf of ourselves and our community.

Courage is being scared to death, but saddling up anyway. —John Wayne

Question / Issue:

Is broadband, as a utility deployment, important to our community?

Background Discussion:

The District and community are benefiting from past broadband decisions and efforts. This does not mean that future action to deploy broadband widely throughout our community as a normal utility type service, i.e. widely available at a reasonable price, is a desirable action for our community. This question is attempting to come to our core belief about the value of deployment of broadband to our community. Not whether the District should do it; not when or if it should be done. We are asking whether District leadership believes broadband is, or will become, an important utility service from the consumer's perspective.

Position 1:

No. Broadband is not and will not be important to the general community in the same sense as other utility services such as water, power, or the telephone.

Position 2:

Broadband may become an important utility service at some point in the future.

Position 3:

Yes. Today's value is not felt by everyone, but the importance of broadband availability as a utility service, at an appropriate price, will steadily increase.

Consensus:

The District believes Position 3 to be an accurate assessment.

Question / Issue:

Is broadband a good fit for the District?

Background Discussion:

We have a proven track record at infrastructure. We have right-of-ways and expertise at installing and maintaining infrastructure. Our initial backbone construction has been successful. The community may benefit from cost based rates.

Culture issues are a concern. The District has a long-term planning horizon; we are about community service, not making money. Staff is quick and nimble when action is appropriate, proven to be quicker than the regional telecommunications providers, but leadership practices a slow, deliberate decision making style. The District could be viewed, in some ways, as risk adverse. New ventures going badly are severely frowned on when operating with public monies. Some level of community second guessing is likely despite outcome. Our pay scales are different from the private sector. Our authority is restricted by legislative process (discussed separately as an issue). As we have no access to venture capital or stock markets, our funding recourses are more limited than a private company.

Position 1:

No, broadband is not a good fit for the District. We have too many disadvantages. The community would be better served by another provider.

Position 2:

Broadband is a reasonable fit. There are some advantages and disadvantages. Whether the District should provide broadband as a widespread utility to our communities should rest on other factors.

Position 3:

Broadband is actually a great fit. The District can deliver this service as or more cost effectively than anyone.

Position 4:

This question of fit really is not that relevant. Pragmatically, we are the only provider alternative. If the District does not provide broadband, our community will be the last to get advanced services. The decision as to whether and how to provide broadband should rest on other factors.

Consensus:

The District believes Position 2 to be most accurate. However, leadership also believes that if the District does not provide broadband, our community will be among the last to get advanced services.

Question / Issue:

Do you believe broadband, as a utility service, will be a good financial business model in the future?

Background Discussion:

This question will tell us whether we might want to own the business in this county in the future. If we believe it will be a paying utility service, we might want to position ourselves to own it in the future. If District leadership does not believe it is a good business case for the future, we might follow the private sector decision of avoiding the business. In that latter case, you would only pursue the model if leadership decided it necessary for the community, in which case the proper business model would involved subsidization, careful control of net cash outflow, and debt avoidance (since the business will not be able to pay off debt). So this question has significant bearing on future business plans.

This question can be partially answered with cost / benefit analysis, but there is no certainty outcome will mirror planning. At this time, we are seeking a gut level instinct.

If we have no consensus here, the District has a problem. With no consensus on this item, it is unlikely everyone will be able to get lined up and pointed in the same direction. Differing viewpoints may make it very difficult to achieve consensus and maintain staff support. People with differing fundamental beliefs will second guess direction and broadband will lack the widespread internal support it will likely need to reach success, however defined.

Position 1:

No, deployment as a widespread utility service does not look like it will ever be a good business model. Cash flows seem unlikely to ever cover business costs.

Position 2:

The future, as always, is uncertain. However, leadership believes it reasonably likely revenues from deployment as a utility service will be able to cover all costs at some interim point in the future, but likely not in the next several years.

Position 3:

The District strongly believes broadband will be a solid, financial business case in the future. Our leadership believes the desire and need for broadband to the home and small business will steadily increase. We believe the majority of the community will want the service and be willing to pay service rates approaching water and power. We believe this a sufficient revenue stream, given lower infrastructure / delivery costs. We believe this business likely will be well worth owning a decade from now.

Consensus:

Position 2 states the District's beliefs accurately as this time.

Question / Issue:

What level of community agitation are we prepared to endure?

Background Discussion:

To what extent are we willing to suffer controversy? Must we have a positive community relationship and even keel? Do we go full throttle following the courage of our convictions and take whatever consequences come our way? Major actions of public utility districts are often controversial to their communities. The District enjoys good relationship with its local community, and is generally trusted and respected. This positive relationship works to the advantage of both the District and the community. Damaging such a relationship can never be viewed as a good thing for the District or the community.

Position 1:

We strongly desire no controversy. We enjoy community respect and believe it essential to protect and maintain this relationship with our community. There is no justification for damaging such a relationship. The District needs to manage itself smart enough to accomplish its goals without developing community controversy.

Position 2:

District leadership does not expect their decisions to sit well with everyone. Some issues are, by their very nature, controversial. The District will tolerate some level of community controversy, but only a limited amount. While it is expected certain decisions will create some objections, the controversy should never become widespread. The District should be able to manage its business in such a way as to limit controversy to an isolated few, although perhaps vocal, opponents. Our community relations are very important, to both ourselves and the community, and we need to do our part to maintain community trust. Widespread controversy breaks the public's trust.

Position 3:

District leadership should always do what is right. The community should be consulted, differing opinions taken and weighed. But in the end, the District must have the courage to make the right decision, whether popular or not. We will not try to control, limit, or spin the community. We will be direct and honest. Leadership will not hesitate to make an unpopular decision, if deemed to be in the best interest of the District and community, regardless of the potential for community controversy.

Consensus:

Position 3 is viewed as somewhat arrogant by our leadership and Position 1 as not always practical. Position 2 best reflects our beliefs. However, District leadership wishes to strongly affirm the statements made in Position 3 are to apply to all District behavior at all times: we will not try to control, limit, or spin the community; we will be direct and honest.

Question / Issue:

Will District action specifically follow the community's majority opinion?

Background Discussion:

The answer to this question will correlate somewhat with the previous issue regarding level of tolerance for public controversy. The underlying issue the District is trying to address here concerns potential conflicts between majority rule versus representative government.

Representative government is about electing officials to make decisions on your behalf. The theory is the general public can not get educated on each and every decision faced by every public agency. The public elects individual representatives to get educated on those issues and make decisions on their behalf. These elected officials must balance their perceptions of public desires, the wishes of the people who elected them, with their developed knowledge base to get to the "right" decision. If their educated judgment does not correlate directly with their perceptions of public desires, a conflict naturally exists. This question is attempting to get to our core value of how we would proceed making a decision in such a situation.

Position 1:

The leadership of the District believes it best to follow the majority will of our community.

Position 2:

The leadership of the District will give precedence to representative government principles; however, not to the extent of alienating our community. In such a situation, the District should look for ways to bring the necessary education to the public and lead them to the same conclusions their representative officials have already reached on their behalf. A final decision should not be made until differences can be largely reconciled.

Position 3:

Representative government is not always easy or pretty. It is necessary to understand the will of the public. There is a place for the Initiative process, which is an expression of majority rules, to exert the will of the people. However, the District's value judgment is that representative government works best. This District will try to share information with the public to get them to the same place as its leadership. But this may not always be an option. There may not be enough time for the education process; the public may never get to the same place. The District will make what it considers to be the best decision, when necessary, even if our perception is that decision is not supported by the majority of the community.

Consensus:

The District values are between Position 1 and Position 2. Any differences between representative government and majority opinion must be reconciled before acting, whenever possible. Majority opinion cannot be ignored.

Question / Issue:

If the District moves forward with a community broadband deployment, to what extent should the community be involved?

Background Discussion:

We are a public entity, and community involvement is a given as is asking for and taking public input. The public has a right to know about our activities, which we strongly support. This issue is more to address the extent of public involvement in actual staff work of making business plans, development of business policies, and infrastructure deployment activities.

Position 1:

The District will do survey(s) to determine the community's will and beliefs concerning District deployment of broadband as a utility service. We will be open about our planning processes and take public input at all public meetings. Staff will encourage and facilitate public reporting on broadband activities.

Consensus:

The District believes Position 1 is the only appropriate answer to the question posed here. The public should be fully informed, but staff must do the critical planning and deployment processes. Citizen focus groups and/or committees may or may not be used during this process, as deemed appropriate, considering whatever underlying need is driving the focus group / committee formation.

Question / Issue:

Are wholesale laws too onerous a business model?

Background Discussion:

The state legislature has granted public utility districts authority to do broadband on a wholesale basis only. The District is not to sell directly to our county residents and businesses; there must be an authorized third party provider slotted between the end user and the District. The District may build the infrastructure to end user premises, but may sell only to telecommunications companies and Internet Service Providers, who in turn resell service to the general public. The intent is to stimulate competition by having multiple providers use a common infrastructure for delivery of broadband services to the general public.

Position 1:

Wholesale laws will not work for this county. The District must have full retail rights to provide the utility service. It is our belief that allowing private use of public infrastructure will fail to bring any substantial level of benefit to our community.

Position 2:

Wholesale law is workable. While the District would like unrestricted authority, our belief is we can stimulate the proper level of competition by obtaining multiple service providers over a common infrastructure, and that our community can realize the benefits of affordable broadband under the current wholesale law.

Consensus:

Position 2. The law exists; it cannot be blamed or denied. We work with what we have to work with; the District believes our community can realize the benefits of affordable broadband under the current wholesale law.

Question / Issue:

Is this a utility service that must financially stand on its own?

Background Discussion:

Bringing broadband to our community as a utility service may be a good business case, fully capable of paying its own way. Or it may be a poor business case, unable to generate sufficient demand and revenue to pay its own costs. Our cost / benefit analysis work will give us some insight into whether the business case is good or bad; actual deployment will speak even more clearly to this point.

This question addresses whether we might choose to move forward under a bad business case. In other words, if our planning processes indicate a reasonably prudent private company, operating under a profit motive, would not go forward, would we move forward anyway? Obviously, if there is no value to the District or the community, the project should not be done. However, if there is value to the community, would the District take on a poor business case? Would the District take on an anticipated negative cash flow to support perceived community good? Is this like roads or sidewalks, where local government provides infrastructure to benefit the community? Or should deployment only occur if the utility service is self supporting?

Position 1:

The District views this as a utility service. It needs to pay its own freight. We will not subsidize the business because of perceived community benefit. If there is community benefit, people should be willing to pay for the service. If they are unwilling to pay enough to self-support, clearly the community benefit is not sufficient.

Position 2:

The District believes there is clear community benefit to broadband. The cell tower generates obvious benefit to the north part of the county regardless of cash flow to the District. The deployment to the hospital similarly provides indirect benefit to everyone. Broadband can and will aid economic development. The District will seek to provide this service to the community, even under a poor business case, if deemed possible and appropriate.

Consensus:

The District believes Position 2 to be the most appropriate response, with emphasis on the ending statement, "if deemed possible and appropriate."

In keeping with previously answered questions, deployment should not go forward unless it is the expressed will of the community, and the public must be aware of District activities.

Leadership does believe broadband utility services will, at some point in the future, need to stand financially independently. The District does not envision entering into a business that requires permanent subsidization.

Question / Issue:

Under a poor business case, to what extent will the District subsidize?

Background Discussion:

Normally, an entity will not knowingly take on a poor business case. However, the answer to the prior question / issue may indicate the District is willing to do so, to a certain extent.

Clearly a poor business case requires different handling. Debt should not be taken on without expectation of ability to repay. Subsidizing may require careful control of net cash outflow, perhaps a parameter not to expend more than a certain level each year. This would likely lead the District to a slow deployment process.

While there are parties that object to any subsidy of such activities, the current wholesale law does not prohibit subsidization.

The District is a public entity. Any subsidization should be done in an open and above board manner. Such action should not be hidden from public scrutiny.

Position 1:

The District will not subsidize the business. The expectation must be of a self-supporting entity, or we will not move forward.

Position 2:

The District will ask our community about its desires. If there is widespread support for deployment and support with Electric Revenues, the District will allow a certain level of subsidy to exist. That subsidy will be capped at a set level so net cash outflow is defined and contained.

Position 3:

The District will subsidize a poor business case to the extent leadership deems appropriate.

Consensus:

Position 2 best suits the District's values and appetite for risk. Support must be widespread; the public must be aware and informed on the subject.

Question / Issue:

To what extent will the District tolerate a phased deployment?

Background Discussion:

The “digital divide” refers to rural communities lacking broadband services at the same price and availability as urban communities. If deployment is slow, is the District creating that a divide within our own community, with haves and have nots?

If all our community is somehow financially supporting the venture, through electric revenue subsidization or otherwise, does that mean full deployment is necessary?

If there is a good business case justifying debt issuance, then full and quick deployment is certainly a possibility. However, the business case may indicate slow deployment as the more prudent alternative. If this is the case, is the District willing to take a longer period of time to fully bring the benefits of broadband to the community?

The District has a backbone already available that does much good for our community. This question concerns our tolerance to taking a slow growth approach to providing broadband as a utility service.

Position 1:

The District believes slow deployment to be the only alternative. This venture has too much risk to move quickly to full deployment. Leadership believes we must move slowly, one step at a time, and prove the business case as we go. Unless pent up community desire is rather severe, we will not move to full deployment in the near future.

Position 2:

If the business case indicates slow deployment to be reasonably prudent, the District will do so. We will explore low cost alternatives, such as wireless and power line carrier technologies, to bridge the gap. We will consider processes whereby areas of our community may pay for the cost and thereby receive earlier deployment. While the District prefers making full broadband service available to everyone within a reasonably narrow timeframe, we believe it more important to do what our business planning indicates to be most prudent. A low risk approach is more important to the District than immediate full deployment.

Position 3:

The District strongly desires full deployment as soon as practicable. We do not want haves and have nots in our community. The District wishes to “own” the broadband utility service in the future, within parameters of our authority, and will not take the risk of delay, of another provider deploying first. This county should not have dual or proprietary / monopolistic infrastructures, and the District wishes to develop its open access system first.

Consensus:

District leadership believes Position 2 to be the best approach, with the understanding that full, immediate deployment may well occur if the business case is good and risk appears low.

Question / Issue:

Under a wholesale model, what level of customer service will be provided?

Background Discussion:

Under the wholesale model, the third party provider should actively sell the service and do all customer care activities, including billing the customer. The District's role is to develop infrastructure, enable open access (multiple provider use of the common infrastructure) thereby stimulating competition, and bill the third party provider.

In our very rural community, it may be difficult to develop sufficient selection of local providers. It is likely the District will enable providers outside Pend Oreille County access to customers in our community. While these providers can certainly provide call center services, they may not have a physical presence in our community.

Pragmatically, the District is well known and highly regarded in this county. Third party providers may not be. It is not uncommon for a customer to know and directly contact our field personnel. Customers seek our help even when the problem resides in customer premise equipment, not with our network. Under a wireless system, someone may have to physically show a customer how to set their computer up for access. Certain activities may or may not be doable over the phone.

The District's business costs will obviously be affected by staffing levels, which will correlate to customer care considerations.

Position 1:

The District will hire sufficient personnel to ensure the physical infrastructure is operating properly. There will be no help given to customers. If a problem is deemed to be with customer premise equipment, the customer and third party provider will have to resolve the issue without District help. District employees will develop instructions on proper use of our infrastructure for third party providers, but will not discuss those instructions with the customers.

Position 2:

The District will make our best efforts to flow all customer service activities through the third party provider, but will directly help our community under certain circumstances. The third party provider must perform call center activities and try to resolve problems over the phone. If a service call to the customer premise is required to enable proper service, the District will perform that activity, if requested by the third party provider, even when we know our infrastructure is operating properly.

Consensus:

The District wishes it could follow Position 1, but does not believe that to be pragmatically possible. To achieve the benefits of competition for our community, service providers outside the county will almost certainly be necessary. Business plans will be based off Position 2, but try to minimize customer service calls. It may be a private business entity will identify and address the opportunity to interface with the customer on behalf of all retail service providers, although the creation / presence of such an entity is not controllable by the District.