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DECLINE OF COAL

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Decline of Coal

Economic Effects on Utilities

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COAL HAS LONG been one of the major industries for the southwest region of Virginia. A 2015 quarterly report by the Virginia Employment Commission (VEC) states “The mining sector of the economy continues to decline.” (Kestner, 2015) Utilities in this region struggle to maintain their sustainability in the face of the decline of the coal mining industry. This decline causes a decreasing customer base, decreasing revenues, (VEC, 2016) decreased tax support (Sweetman, 2015), and increased energy expenses. (Institute for Energy Research, 2012) Whenever a business suffers declining revenues, all measures to increase revenues and lower expenses must be considered. This article considers some of the options available to utilities in the region, including raising rates, cutting costs and consolidation.

The Washington Post indicates the reasons for the coal industry decline include: automation in the industry, increased regulations from the EPA, and competition from cheaper energy sources such as natural gas and cleaner coal from other regions. (Plummer, 2013) VEC reports indicate that the majority of the 8 percent unemployed in this region were previously employed in mining and extraction operations. (VEC, 2016) The VEC also projects that in contrast to the rest of the state, the population of this area will continue to decrease over time. (VEC, 2016) This creates a decreasing customer base and a corresponding decrease in revenues from the loss of these customers. Furthermore, most utilities in this area supplement their budget with taxes on coal. The coal severance tax delivers revenue directly to the local government, at levels proportional to the amount of coal removed from the area. (Sweetman, 2015) Decreasing coal production results in a decrease in the local government revenue available for these utilities. This issue is more painful for those communities that were heavily subsidizing their utilities from this tax revenue. Compounding the problem, the Institute for Energy Research predicts that in the near future “consumers will see electricity prices soar”. They predict this will occur as natural gas prices are allowed to rise when they no longer have to compete with coal. (Institute for



Energy Research, 2012) This increase in energy prices will hit utilities harder than many other industries. This is due to the large amount of energy used by pumps to move water through the pipes in these mountainous areas.

The decline of the coal industry effects utilities by causing a decreasing customer base, decreasing revenues, decreased tax support (Sweetman, 2015), and increased energy expenses. (Institute for Energy Research, 2012). Utilities facing these circumstances are unable to take on new debt for repair and improvement projects needed to maintain the status quo.

If they are to remain sustainable, they must take action to increase revenues and lower expenses. The only options available for increasing revenues include raising rates or increasing taxes. Utilities may want to compare their rates with those of their neighbor’s to determine if they are underpriced. Many municipal utilities in Virginia have their water and wastewater rates posted on Draper Aden’s rate survey tool, which can be accessed at www.daa.com/vawwwrates. It is important for utilities to compare, or benchmark, to utilities of similar size and demographics. (Water Research Foundation, 2014)

Simply comparing one utility's rate to another does not provide an accurate comparison. This is because some utilities keep their rates artificially low by foregoing necessary maintenance and repairs, and by not saving for the future replacement of their failing infrastructure. The Water Research Foundation recommends comparing not only rates, but also financial ratios. (Water Research Foundation, 2014) Some common ratios they suggest include: the current ratio, days cash on hand, the operating ratio, and the debt service coverage ratio. "The current ratio measures whether the utility has enough money to pay their current bills, also referred to as liquidity. Days cash on hand measures how long the utility could operate off of unrestricted savings. The operating ratio measures whether revenues are enough to pay for expenses. The debt service coverage ratio measures the utilities ability to pay for debt." (Water Research Foundation, 2014) More information concerning the use of ratios to compare utilities, including the formulas, can be found on their 10 minute video: *Financial Benchmarking for the Water Industry*, which can be accessed at the following website: <http://www.waterrf.org/Pages/Projects.aspx?PID=4366>.

Several common ways utilities lower expenses include: implementing energy efficiency projects (Oliver & Putnam, 2000), optimizing the operation process, decreasing the labor force, and reducing waste such as repairing leaky pipes. (George, 2010) In the book *Lean Six Sigma Guide to Doing More with Less*, the author points out the importance of carefully selecting costs to cut that will not impact the business process; or in other words, make sure it really is fat before making cuts. (George, 2010) This author also points out some "common pitfalls of traditional cost-cutting approaches." Applying the author's advice to the utility industry provides the following guidance. Do not arbitrarily require all departments to cut their budgets by a certain percentage. Some activities are more important to providing service to customers than others and may need fewer cuts. Collect and analyze data in order to develop a plan that provides lasting results. Do not focus on short term cuts that negatively affect the business in the long run. An example of such a short term cut would be foregoing necessary maintenance and repairs. Listen to the customers. If customers suffer due to cost-cutting measures, they may elect new officials that

will address their concerns. The utility should determine the minimum level of service that they are willing to provide. It is easy to focus solely on maintaining water service to the customers. However, if utilities also plan to provide water that is not discolored, has very low odor, tastes good, and has sufficient quantity for fire flow, then the process of providing it gets increasingly complex. It also gets more expensive to meet each of these successive levels of service. Lastly, he suggests not "turning to technology as a solution for every ailment." (George, 2010) A computer software package that does billing, accounting, data analysis, operations management, and everything else, may promise to cut costs. Utilities need to carefully analyze whether this is realistic given the constraints of their operation.

One of the least considered, and most efficient, ways of lowering costs includes taking advantage of the economies of scale through consolidation of utilities with neighbors. Whether this includes physical connections or simply management consolidation, some sources have indicated that up to 30 percent savings can be achieved. (Shih, et al, 2006) Utilities should consider whether or not consolidation with neighboring utilities is technically feasible, and put aside politics in order to build sustainable utilities.

With the decline of coal, the region is seeking alternate industries that may be lured to the area to take advantage of the unique set of characteristics present in these mountains. Some of those include an abundance of water, strong utilities, hardworking citizens and sound business decisions in the face of hardship. Duane Miller, Deputy Director of the LENOWISCO Planning District Commission, (serving the counties of Lee, Scott, and Wise, and the city of Norton), has said that "Strong utilities aid in economic development efforts to market this region to new industries, which can have a positive impact on the area's economic resurgence." (Miller, 2016) Strong utilities can manage for sustainability, even in the face of the decline of their community's major industry. ♠

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