COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NORTHERN KENTUCKY WATER DISTRICT FOR APPROVAL OF CONSTRUCTION AND ISSUANCE OF A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE PURCHASE AND INSTALLATION OF AUTOMATED METER READING EQUIPMENT	)	CASE NO. 2008-00119

RESPONSE TO DATA REQUEST

Northern Kentucky Water District (NKWD), by counsel, submits the attached responses to the Attorney General's data request.

SUBMITTED BY:

John N. Hughes
124 W. Todd St.
Frankfort, KY 40601

Attorney for Northern
Kentucky Water District

Certificate:

I certify that a copy of this response was delivered to the Attorney General, 1024 Capital Center Dr., Frankfort, KY 40601 the 8th day of May, 2008.

John N. Hughes

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NORTHERN KENTUCKY WATER DISTRICT RESPONSES TO THE INFORMATION REQUEST FROM THE ATTORNEY GENERAL

Q1. Under the assumption that the District will obtain authorization to purchase and install automated meter reading equipment, will the District continue to read any meters manually? (For example, will the District read the meters serving its wholesale customers manually?) If yes, please explain criteria (or process) through which the District will determine the meters to be read manually.

A1. Witness: Lofland.

The District currently reads all meters via "touch-read" including large wholesale and monthly customers. Only if there is a reading in question (example: fails high/low parameters) will the District return for a manual read. The same process will be followed with an AMR reading program. In addition to normal reading information the District also gathers a manual reading on all larger meters, such as wholesale customers through our testing and maintenance programs.

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Q2. Please provide a brief description of a "pin read" meter and summarize the difference between a "pin read" and a manual read.

A2. Witness: Lofland.

"Pin-Read" refers to a remote reading technology used just prior to "Touch-Read". This earlier generation system utilizes a series of metal pins inside a receptacle mounted near the meter or on the side of a structure where the meter is housed. A meter reader will gather readings by plugging a portable hand-held reading unit into this receptacle. The District has approximately 3,300 of these remaining in the system. These are located in Newport and were acquired through the purchase of that system by the District.

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Q3.) With regard to Section VI (Monitoring of Customer Usage) of the District's rates, rules, and regulations, please indicate whether the District will modify its policies including the policy of sending a Field Service Representative to reread the meter ***and*** investigate the potential cause of an increase in usage. If yes, please summarize the modification. If no, please explain why a modification is not necessary. (Please address whether and, if applicable, how the investigation process will change.)

A3.) Witness: Lofland.

The District has no plans to change its policy of re-read or investigation. Only the technology used to perform these functions will change and the speed at which this can be accomplished will increase. While the District will have the ability to gather readings in a fraction of the current time, the information gathered will be subjected to the same standards currently used. Additionally, the District will have extra tools available such as the ability to program a meter to gather trending information, indicate possible meter tampering and sound an immediate on site alarm for excessive use.

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Q4. With regard to Section VI (Monitoring of Customer Usage) of the District's rates, rules, and regulations, please indicate whether the purchase and installation of automated meter reading equipment will allow the District to modify its policies or procedures regarding the investigation of a usage deviation brought to its attention through a customer inquiry. (If yes, please summarize the potential modifications and indicate whether the District plans to enact the modifications.)

A4. Witness: Lofland.

The District does anticipate an enhanced ability to investigate customer inquiries through water usage trending capabilities. Each AMR transmitter is factory programmed to retain up to 22,000 readings gathered at preset intervals that can be extracted and evaluated by District staff. Additionally, the District can provide a monitor that gives a customer the capability to remotely see meter readings upon demand thus allowing a customer to trend their water usage.

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Q5. With regard to Section IX (Adjustment of Water Bills) of the District's rates, rules, and regulations, please indicate whether the purchase and installation of automated meter reading equipment will allow the District to modify its policies or procedures regarding leak adjustments. (If yes, please summarize the potential modifications and indicate whether the District plans to enact the modifications.)

A5. Witness: Lofland.

No. However, AMR will give the District the ability to read meters more frequently (Example: quarterly vs. monthly). With a more frequently read meter, an event such as a leak would generally be discovered sooner reducing the amount of water loss.

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Q6. With regard to "Field Service Reads," please indicate whether the District currently recovers the cost of such a read through a non-recurring charge. (If it does not, then please confirm that the cost of such reads is otherwise "charged" against the District's general revenue through rates rather than a non-recurring charge.)

A6. Witness: Lofland.

The cost for "Field Service Reads" are not recovered through a non-reoccurring charge, but rather absorbed against the District's general revenue through rates.

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Q7. Regarding pages 14 of 46 and 25 of 46 ("soft costs" such as reordering meter routes, software and programming devices), does the Application include these costs in the Feasibility Study Cost Model? (If yes, please identify the estimated costs for the option chosen. If no, please provide an estimate of these costs.)

A7. Witness: Lofland.

No. Soft costs were discussed as part of the overall project but were not included in the cost model. The model portrayed only tangible costs for the collection of meter reads, resulting work orders, and capital costs. Some soft costs can be estimated such as routing software. The District investigated one with a cost of approximately $80,000 for software and staff to perform reorganization. Other soft costs such as a return on more frequent meter readings that aid in hydraulic modeling or customer usage profiling are certainly advantageous but difficult to quantify in monetary terms.

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Q8. Page 20 of 46 includes a discussion of "failure rate of the encoder register" and the corresponding reliability record for a manual read system. With regard to the automated meter reading option chosen, please provide the District's assessment of any failure rate associated with the option and the corresponding reliability record. (Further, indicate the incremental increase or decrease in the reliability of the chosen option as compared to the District's current method.)

A8. Witness: Lofland.

In this instance the "failure rate of the encoder register" is referring to the Touch-Read technology. NKWD's experience with this technology has proven to be very reliable, certainly less than one percent encoder failure. As mentioned, an increase over manually read meters would have to include an exceptionally high failure rate to overcome the efficiencies gained through the program. Concerning AMR we experienced no (zero) encoder failures with the meters purchased for evaluation. Badger has provided documentation that of approximately 2 million units in service there is less than ¼ of one percent return (failure) rate. Neither technology is new to the market and the NKWD expects that the AMR application will have the same reliability rate as with Touch-Read.

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Q9. Please indicate whether the option chosen will be powered by a battery. (If yes, what is the battery life? Additionally, if yes, then what are the safeguards or protocols for monitoring the operation of the unit?)

A9. Witness: Lofland.

The option recommended does have a battery powered transmitter unit. The estimated life is 20 years. NKWD will have a battery warranty of 20 years; 10 years full replacement (transmitter included) and 10 years prorated (transmitter included). If a battery fails there is no signal, Field Service staff will know to replace the unit. There is no instance of weakened signal that might lead to inaccuracies; either it transmits at full strength or not at all.

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Q10. In terms of risks, does the District agree or disagree that there is a risk that the vendor may elect to discontinue the product line (for example as a result of a change in technology) as well as a risk that the vendor may discontinue operations (for example as a result of bankruptcy). If not, explain why not. If yes, please identify whether (and if applicable how) the District quantified and assessed such risks in its analysis.

A10. Witness: Lofland.

This was one of the most scrutinized portions of the evaluation process. NKWD evaluated the stability of each of the vendor's chosen technology, future applications, and the manufacturer's financial security. NKWD chose this particular manufacturer because of the flexibility that the transmitter allowed for future applications, WiFi, Fixed Network, or Manual Reads. NKWD evaluated the number installations in operation and those currently being installed. Badger Meter has captured a large portion of the AMR market and is currently installing much larger projects (Chicago) than NKWD's customer base. Part of NKWD's risk mitigation is a comfort in numbers and warranty periods in contract.

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Q11. With regard to page 26 of 46, would the District still move to monthly billing in the event that the Commission denies the Application? (If yes, please explain why. If no, please explain why not.)

A11. Witness: Lofland.

NKWD views AMR as part of the groundwork necessary to move to a monthly billing scenario. If the Commission denies the application the District would probably find it necessary to reevaluate plans for monthly billing. This would have to be further evaluated because of the increase in operating costs associated with collecting the number of meter readings necessary. Staff (meter reading) would be significantly increased to collect meter information. Likewise the Districts capital costs would also escalate in support of larger staff necessities.

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Q12. With regard to risks, please identify the major risks associated with system (or process) reliability and the corresponding safeguards or contingency plans that the District will utilize to address these risks.

A12. Witness: Lofland.

The District is not replacing the existing meter but rather adding a transmitter to the meter. There will be only a minimum number of actual meter change-outs (Pin-Reads) where a customer will see two meters on a billing statement. NKWD will be operating both the old RMS (Reading Management System) and the new Badger / Orion system in parallel until such time that the District is comfortable with the new RMS. Ultimately all of the Districts meters could be read manually.

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Q13. Page 28 or 46 indicates that purchase and installation of automated meter reading equipment will support unaccounted-for water studies. Please summarize how. (For example, will the District install automated meter reading equipment on master meters – meters within the system other than meters of customers?)

A13. Witness: Lofland.

The study indicated that there would be limited support for unaccounted-for water studies. As indicated in one of the earlier questions this type meter has the capability to either come factory set (NKWD's will) or to be programmed to store up to 22,000 readings at whatever interval desired. This type of information is useful in both hydraulic modeling surveys and leak detection (unaccounted-for water loss).

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Q14. With regard to NKWD's 23 March 2005 Meeting minutes, the minutes include the following statement, "The liability issue - a majority of the work orders are brought in by the meter readers - this will be lost with AMR." Please explain this statement and indicate any measures the District will take to try to offset such a loss.

A14. Witness: Lofland.

This is a drawback that is considered with any of the AMR options. Because staff will no longer be required to physically be at each meter pit with the new system, items such as loose lids or leaks inside the pit have the potential to be overlooked. One of the reasons the District opted for the Drive-by solution was because it still required some District presence, whereas a Fixed-Base Network does not.

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Q15. Please identify the projected rate impact for the average residential customer for the chosen option over the corresponding planning horizon.

A15. Witness: Bragg.

The additional revenues required to service the debt and to provide for depreciation if the AMR system is implemented would result in an approximately 3% increase in rates.

AFFIDAVIT

COMMONWEALTH OF KENTUCKY

COUNTY OF KENTON

Affiant, Jack Bragg, appearing personally before me a notary public for and of the Commonwealth of Kentucky and after being first sworn, deposes, states, acknowledges, affirms and declares that he is Vice President – Finance, that he is authorized to submit this Response on behalf of Northern Kentucky Water District, and that the information contained in the Response is true and accurate to the best of his knowledge, information and belief, after a reasonable inquiry, and as to those matters that are based on information provided to him, he believes to be true and correct.

Jack Bragg

This instrument was produced, signed, acknowledged and declared by Jack Bragg to be his act and deed the 7th day of May, 2008.

Mary P Alexander
Notary Public

My Commission expires: March 29, 2010