What is Your Utility Worth?

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BURNS McDONNELL

Agenda

- Notifications and Limitations
- Appraisal Terminology
- Cost Approach
- Income Approach
- Market Approach
- Range of System Values
- Other Considerations
- Questions

Notifications and Limitations

Notifications and Limitations

- Analysis should be completed in accordance with professional standards
- Initial study does not need to include all the procedures required for a full conclusion of value
- Range of values determined should not be considered an appraisal as defined by the Uniform Standards of Professional Appraisal Practice

Appraisal Terminology

Definitions and Terms

- Assets, book value, reproduction and depreciation
- Going concern, intangible, intrinsic
- Discounted cash flow, discount rate, capitalization
- Arms length

Appraisal Terminology

- Consider three approaches to value determination
  - Cost approach
  - Income approach
  - Market approach
- "High-level" valuation can rely on information provided by the City and publicly available data
- Assume system to be acquired by hypothetical buyer and operated as ongoing, stand-alone business enterprise
- Some intangible assets may not be fully accounted for in preliminary valuation

Cost Approach

Cost Approach

- Two value data points calculated
  - Original Cost Less Depreciation or Book Value (OCLD)
  - Reproduction Cost Less Depreciation (RCLD)
- OCLD value relies primarily on data provided by City
- RCLD based on a trending analysis of OCLD data

Cost Approach

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Original Cost Less Depreciation

Description	Water	Wastewater	Total System
Original Cost	$ 24,718,500	$ 26,212,800	$ 50,931,300
Depreciation	(12,113,600)	(13,764,200)	(25,877,800)
OCLD [1]	$ 12,604,900	$ 12,448,600	$ 25,053,500
Construction Work in Progress [2]	$ 134,500	$ -	$ 134,500
Current Assets [2]	5,777,600	1,017,400	6,795,000
Current Liabilities [2]	$ (763,400)	$ (500)	$ (763,900)
Total Book Value	**$ 17,753,600**	**$ 13,465,500**	**$ 31,219,100**

[1] Original Cost Less Depreciation (OCLD)

[2] Construction Work in Progress, Current Assets & Current Liabilities are from 2015 Final Audit

*All values have been rounded to the nearest hundreth

Cost Approach

Replacement Cost Less Depreciation

Description		Water		Wastewater		Total System
Replacement Cost	$	47,989,800	$	48,226,800	$	96,216,600
Depreciation		(21,537,600)		(26,416,000)		(47,953,600)
Residual Value [1]	$	41,900	$	103,200	$	145,100
RCLD Plus Residual Value [2]	$	26,494,100	$	21,914,000	$	48,408,100
Construction Work in Progress [3]	$	134,500	$	-	$	134,500
Current Assets		5,777,600		1,017,400		6,795,000
Current Liabilities	$	(763,400)	$	(500)	$	(763,900)
Total Book Value	**$**	**31,642,800**	**$**	**22,930,900**	**$**	**54,573,700**

[1] A 5.0% residual value was added to assets that were fully depreciated, but still in use

[2] Replacement Cost Less Depreciation (RCLD)

[3] Construction Work in Progress, Current Assets & Current Liabilities are from 2015 Final Audit

*All values have been rounded to the nearest hundreth

Cost Approach

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Original Cost Less Depreciation

Description	Production Plant	Transmission Plant	Distribution Plant	General Plant	Total Electric System
Original Cost	$ 454,400	$ 1,906,700	$ 13,593,700	$ 6,007,600	$ 21,962,400
Depreciation	(392,000)	(1,648,200)	(11,212,300)	(3,550,900)	(16,803,400)
OCLD	$ 62,400	$ 258,500	$ 2,381,400	$ 2,456,700	$ 5,159,000
CWIP					$ 95,700
Current Assets					8,028,500
Current Liabilities					$ (3,128,900)
Total Book Value					**$ 10,154,300**

Cost Approach

Replacement Cost Less Depreciation

Description	Production Plant	Transmission Plant	Distribution Plant	General Plant	Total Electric System
Replacement Cost	$ 3,478,400	$ 8,249,700	$ 45,362,800	$ 11,647,100	$ 68,738,000
Depreciation	$ (2,681,400)	$ (7,650,000)	$ (40,336,800)	$ (7,742,700)	(58,410,900)
Residual Value	$ 20,900	$ 295,900	$ 1,437,900	$ 199,200	1,953,900
RCLD Plus Residual Value	$ 817,900	$ 895,600	$ 6,463,900	$ 4,103,600	$ 12,281,000
CWIP					$ 95,700
Current Assets					8,028,500
Current Liabilities					$ (3,128,900)
Total Book Value					**$ 17,276,300**

Income Approach

Income Approach

- Income approach performed using a 20, 30, or 40-year discounted cash flow analysis
- Based primarily on data supplied by City
- Take into account trends in revenues, operating expenses, and known capital costs
- Can assume continued operation as municipal system or as private entity
- Revenues should include forecast increases
- Expenses should include adjustments for inflation
- Can perform analysis from both private “taxable” ownership and public “nontaxable” buyer perspective

Income Approach

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Discounted Cash Flow

WACC	Description	NPV	Outstanding Principal	Enterprise Value
5.0%	30 Year ProForma	$ 42,991,300	$ (10,110,500)	$ 32,880,800

*All values have been rounded to the nearest hundreth

Income Approach

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Discounted Cash Flow

WACC			NPV
4.0%	ProForma 20Y Municipal	$	19,526,200
8.0%	ProForma 20Y IOU		11,073,900
5.0%	ProForma 20Y CO-OP		21,101,000
	Average of IOU & CO-OP	**$**	**16,087,500**
4.0%	ProForma 40Y Municipal	$	61,144,200
8.0%	ProForma 40Y IOU		21,720,900
5.0%	ProForma 40Y CO-OP		58,988,900
	Average of IOU & CO-OP	**$**	**40,354,900**

Market Approach

Market Approach

- Based on comparable sales of systems
- Generally arms-length transactions
- Includes both rural and urban systems
- Ranged from a few hundred to over 100,000 customers
- Used as basis for sale price per customer

Market Approach

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Market Benchmark

Municipal	State	Sold To (IOU)	Sale Price	# of Customers	Sale Price / Customer	Inflation Index	Inflated Sale Price / Customer ($2016)
Citizens Communications Compar	CT	American Water - CT	$ 859,000,000	130,000	$ 6,608	1.41	$ 9,300
Dunnigan Water System	CA	American Water - CA	2,000,000	300	7,194	1.03	7,400
Captain's Cove Company	VA	Aqua America - VA	2,400,000	2,500	964	1.03	1,000
Millersburg	KY	American Water - KY	500,000	800	625	1.05	700
				Average Sale Price per Customer			**$ 4,600**

*All values have been rounded to the nearest hundreth

Market Approach

Market Analysis

	Inflated Sale Price/	System Customers	Estimate Market Value
Low	$ 700	6,500	$ 4,550,000
High	$ 9,300	6,500	$ 60,450,000
Average	$ 4,600	6,500	$ 29,900,000

*All values have been rounded to the nearest hundreth

Market Approach

Market Benchmark

Municipal	State	Sold To	Acquisition Year	Sale Price	# of Customers	Sale Price / Customer	Inflation Index	Inflated Sale Price / Customer
Owensville	MO	Ameren Missouri	2012	$ 1,385,000	1,402	$ 988	1.10	$ 1,090
Readsboro Electric	VT	Central Vermont Public Service	2011	360,000	319	1,129	1.13	1,277
City of Campbell	MO	Ozark Border Electric Coop	2010	1,977,000	962	2,055	1.16	2,383
Monticello Electric	KY	South Kentucky Electric Coop	2008	4,686,000	3,500	1,339	1.22	1,631
Darwin	MN	Meeker Coop Light & Power Ass.	2007	411,000	260	1,581	1.25	1,974
Oakley	KS	Midwest Energy	2006	2,500,000	1,302	1,920	1.28	2,458
St. Michaels	MD	Choptank Electric Coop	2006	12,200,000	4,000	3,050	1.28	3,904
						Average Sale Price per Customer		**$ 2,100**

Market Approach

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Market Analysis

Number of Customers		Average Inflated Sale Price / Customer		Estimated Market Value
7,043	$	2,100	$	**14,790,300**

Range of System Values

Valuation Summary

Represents a preliminary, high-level value range that may differ from the results of a complete appraisal of the water and sewer systems

Total System Range of Value		Cost		Income		Market
OCLD	$	31,219,100				
RCLD Plus Residual Value	$	54,573,700				
30 Year NPV			$	32,880,800		
Low					$	4,550,000
High					$	60,450,000
Average					$	29,900,000

Range of System Values

Valuation Summary

Represents a preliminary, high-level value range that may differ from the results of a complete appraisal of the electric system

Range of Value	Cost	Income	Market
OCLD	$ 10,154,300		
RCLD Plus Residual Value	$ 17,276,300		
20 Year NPV		$ 14,327,650	
Low			$ 7,747,300
High			$ 27,467,700
Average			$ 14,790,300

Range of System Values

- Values calculated under the Cost and Income Approaches fall within the value range indicated by the Market Approach
- Values provided through the Market Approach serve as a sanity check for the other results

Other Considerations

Other Considerations

- Need to consider other intrinsic value factors when considering sale of system(s)
  - Control over system operations
  - Contributions to the financial well-being of the municipality
  - Ability to provide certain community services
  - Sharing of resources among various City utilities and departments
- Value and costs associated with system employees
- Implementation of franchise fees and PILOT on system customers

Other Considerations

- If City determines there is interest in entertaining other system ownership or lease options should possibly perform an economic impact study
- Compare status-quo continued operation of system with a presumed sale of the systems
- Would include a variety of assumptions regarding
  - Needed capital improvements to the systems
  - Other revenue sources (e.g. franchise fees)
  - Use of sale or lease proceeds
  - Future financing costs
  - Rate of inflation
  - Price of purchased services

Questions