

Decorah Municipalization Feasibility Analysis

Presented by:
Ann Bulkley
February 5, 2018



Benefits of Alliant Energy Service in the Future

- Customer costs will be lower if Alliant Energy continues to provide service
- Customer reliability will be better if Alliant Energy continues to provide service
- Customers will be safer if Alliant Energy continues to provide service
- Customers will benefit from our successful sustainability efforts and an increasing percentage of renewable energy if Alliant Energy continues to provide service
- Customers will not be subject to the many risks and uncertainty associated with a start-up utility if Alliant Energy continues to provide service

Lower cost, better reliability, a safer system, successful and aggressive sustainability initiatives, and less risk

We believe that is what our customers want and that is what we intend to continue to deliver to our Decorah customers

What you will hear tonight:

- **Acquisition:** Decorah Power estimated cost to acquire the system is only ~25% of Concentric's estimated acquisition cost, based on historical IUB decisions
- **Sales:** Decorah Power's estimated energy sales are about 50% higher than actual energy sales
- **Rates:** Decorah Power has overstated Alliant Energy's Decorah average retail electric rate
- **Boundaries:** A plan to municipalize outside city boundaries is not consistent with Iowa Utilities Board rulings in 6 prior cases
- **Response:** Outsourcing of system operations will result in delayed response times and a less reliable system
- **Renewables:** Decorah Power's proposed 30% renewable energy mix in year one of operation is less than Alliant Energy's plan for 40% of renewable energy by 2021
- **Start date:** A proposed 2018 start of operation is not realistic, past cases took up to four years

The proposed Decorah Municipal Electric Utility will result in higher costs, a less reliable system and less renewable energy than continued service by Alliant Energy

Introduction

- Alliant Energy engaged Concentric Energy Advisors (Concentric) to conduct a feasibility study of a proposed Decorah Electric Municipal and compare results to those presented by Decorah Power.
- Concentric used the same methodologies that have been used and approved in prior electric municipalization cases that came before the Iowa Utilities Board (IUB) in 1998 and 2006.
 - Aurelia, the last new electric municipal, was created in 1974
 - 6 communities have unsuccessfully attempted to create electric municipal utilities in their communities since 1974
 - Sheldon 1998; Everly, Kalona, Rolfe, Terril, Wellman 2006
 - Concentric developed a feasibility study that provides service on an apples-to-apples basis



Presentation overview

Comparisons

- Acquisition costs
- Power supply costs
- Sales forecasts
- Customer rate forecasts
- Start-up costs
- Operation costs
- Total costs
- Financial Assumptions
- Future customer rates
- IUB process and precedent
 - Approval process
 - City borders rulings

Acquisition of Physical Assets – Concentric

The cost of the physical asset acquisition alone is ~\$20 million

| FERC Account | Description | Replacement Cost New (2021\$) | Percent Condition (%)* | Replacement Cost New Less Depreciation |
|--------------------------------|-----------------------------|-------------------------------|------------------------|--|
| Assets Acquired | | | | |
| 362.1 | Substation | \$5,519,064 | 57.16% | \$ 3,154,670 |
| 364 | Poles, Towers, Fixtures | \$9,743,537 | 55.29% | \$ 5,387,202 |
| 365 | Overhead Conductor | \$4,059,809 | 62.49% | \$ 2,536,794 |
| 366 | Underground Conduit | \$4,652,389 | 72.16% | \$ 3,357,141 |
| 367 | Underground Conductor | \$2,114,722 | 56.07% | \$ 1,185,670 |
| 368.1 | Transformers- Overhead Line | \$2,435,885 | 46.64% | \$ 1,136,085 |
| 368.2 | Transformers- Padmount | \$1,691,778 | 46.64% | \$ 789,037 |
| 369.1 | All Service | \$3,450,376 | 47.18% | \$ 1,627,977 |
| 370 | Meters | \$662,288 | 95.00% | \$ 629,173 |
| | Streetlights | <u>\$467,515</u> | 38.05% | <u>\$ 177,882</u> |
| <i>Subtotal</i> | | \$34,797,362 | | \$ 19,981,630 |
| Real Property Acquired | | | | |
| Land and Land Rights | | \$0 | N/A | \$0 |
| Total Property Acquired | | \$34,797,362 | | \$ 19,981,630 |

* Concentric shows percent of value retained, whereas Decorah Power table shows proportion depreciated

Acquisition of Physical Assets – Comparisons

Decorah Power's estimated asset acquisition cost is ~25% of Concentric's estimated asset acquisition cost

| Description | Concentric Replacement Cost New Less Depreciation | DP Replacement Cost New Less Depreciation | Difference |
|--------------------------------|---|---|---------------------|
| Assets Acquired | | | |
| Substation | \$ 3,154,670 | \$1,376,680 | \$1,777,990 |
| Poles, Towers, Fixtures | \$ 5,387,202 | \$772,358 | \$4,614,844 |
| Overhead Conductor | \$ 2,536,794 | \$176,358 | \$2,360,436 |
| Underground Conduit | \$ 3,357,141 | \$520,420 | \$2,836,721 |
| Underground Conductor | \$ 1,185,670 | \$234,152 | \$951,518 |
| Transformers- Overhead Line | \$ 1,136,085 | \$255,040 | \$881,045 |
| Transformers- Padmount | \$ 789,037 | \$324,381 | \$464,656 |
| All Service | \$ 1,627,977 | \$219,688 | \$1,408,289 |
| Meters | \$ 629,173 | \$1,121,198 | (\$492,025) |
| Other | \$ 177,882 | \$37,500 | \$140,382 |
| <i>Subtotal</i> | <i>\$19,981,630</i> | <i>\$5,037,775</i> | <i>\$14,943,855</i> |
| Real Property Acquired | | | |
| Land and Land Rights | \$0 | \$50,000 | (\$50,000) |
| Total Property Acquired | \$19,981,630 | \$5,087,775 | \$14,893,855 |

- **Decorah Power will need to take on more debt than the DP study assumes**
- **Decorah Power rates will have to go up to pay for this increased debt**

Acquisition of Physical Assets - Methodology

System Inventory

- Determined miles of line, number of services, other facilities from Alliant Energy's GIS Mapping System
- Approximately 53 miles of distribution line within the City limits

Reproduction Cost New

- Developed cost of new construction on a like-for-like basis using Alliant Energy's design tool
- Contains cost of material and labor

Depreciation

- Concentric applied depreciation rates using Iowa Curves
- Iowa Curves are a statistical analysis of remaining life of assets

Methodology

- Determination of cost of physical assets used by Alliant Energy/Concentric is the same methodology used in the 2006 proceeding before the IUB
- IUB accepted this methodology with no adjustments and it was the basis for the determination of the cost to acquire the system

Power Supply Scenarios (\$/MWh) – Comparisons

Decorah Power and Concentric have similar power supply estimates

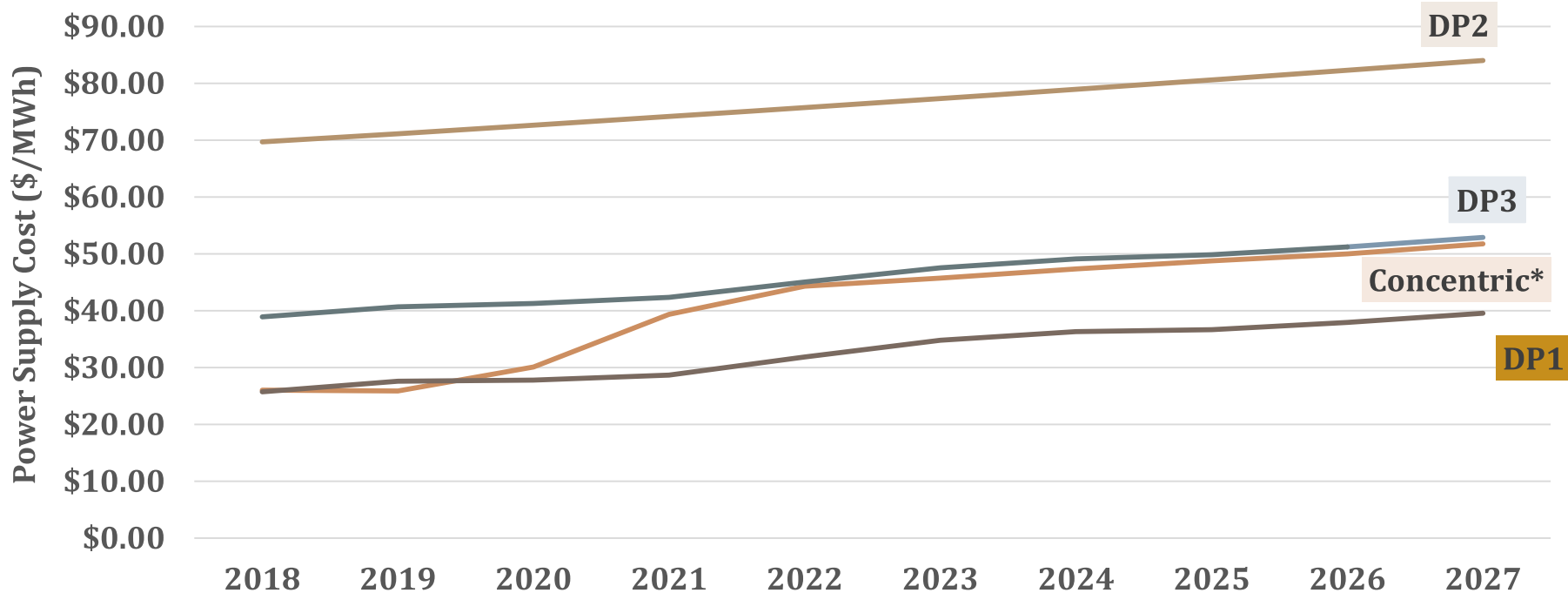
| Year | Concentric (Wood Mackenzie) | Market Prices Option 1 | JAA/G&T Prices Option 2 | Combined Prices Option 3 |
|------|--------------------------------|---------------------------|----------------------------|-----------------------------|
| 2018 | \$26.03 | \$25.74 | \$ 69.70 | \$ 38.93 |
| 2019 | \$25.88 | \$27.61 | \$ 71.16 | \$ 40.68 |
| 2020 | \$30.08 | \$27.81 | \$ 72.66 | \$ 41.27 |
| 2021 | \$39.37 | \$28.70 | \$ 74.18 | \$ 42.35 |
| 2022 | \$44.31 | \$31.89 | \$ 75.74 | \$ 45.05 |
| 2023 | \$45.73 | \$34.83 | \$ 77.33 | \$ 47.58 |
| 2024 | \$47.35 | \$36.34 | \$ 78.96 | \$ 49.13 |
| 2025 | \$48.76 | \$36.68 | \$ 80.62 | \$ 49.86 |
| 2026 | \$50.01 | \$37.93 | \$ 82.31 | \$ 51.25 |
| 2027 | \$51.75 | \$39.56 | \$ 84.04 | \$ 52.90 |

Power Supply Scenarios (\$/MWh) – Comparisons

Power costs are similar

Concentric uses Wood Mackenzie data, which has been utilized in many IUB cases

Power Supply Cost Comparisons



* All cases

Decorah Power's 'Power Supply Option 3' cost is roughly 8 percent higher than Concentric's in 2018, though the two are similar by 2021

Sales Forecast – Comparisons

Decorah Power estimated sales are 50% greater than Alliant Energy's actual sales in Decorah

Decorah Power Estimated Customers and Sales

| Customer Class | Number of Customers | kWh/Month/ Customer | Total Annual kWh Sales |
|------------------|---------------------|---------------------|------------------------|
| Residential | 2,770 | 772 | 25,654,278 |
| Small Commercial | 561 | 4179 | 28,130,820 |
| Large Commercial | 102 | 49091 | 60,087,972 |
| Luther College | 1 | 1,017,100 | 12,205,200 |
| TOTAL | 3,434 | | 126,078,270 |

(1) Estimated customers / load based on information provided by Decorah Power and Alliant/IPL

Alliant Energy 2016 Actual Customers and Sales within Decorah City Limits

| Customer Class | Number of Customers | kWh/Month/ Customer | Total Annual kWh Sales |
|--------------------|---------------------|---------------------|------------------------|
| Residential | 3,020 | 597 | 21,634,000 |
| Commercial | 632 | 4,108 | 31,157,000 |
| Industrial | 20 | 119,400 | 28,656,000 |
| Municipal Lighting | 1 | 17,083 | 205,000 |
| TOTAL | 3,673 | | 81,652,000 |

- **Costs/units sold = Customer energy cost per kWh**
- **Lower actual sales mean higher rates for a Decorah municipal**

Projections for Alliant rates to serve Decorah – Comparisons

Decorah Power's rate for Alliant Energy is ~3% too high

Decorah Power

| Customer Class | Average Retail Rate by Class (\$/kWh) | kWh Load (Annual) | % of Customers by Load for Decorah | 2017 Weighted / Average Rate - Alliant |
|------------------|---------------------------------------|--------------------|------------------------------------|--|
| Residential | \$0.16583 | 25,654,278 | 20.3% | \$0.0337 |
| Small Commercial | \$0.15643 | 28,130,820 | 22.3% | \$0.0349 |
| Large Commercial | \$0.11264 | 60,087,972 | 47.7% | \$0.0537 |
| Luther College | \$0.08315 | 12,205,200 | 9.7% | \$0.0081 |
| TOTAL | | 126,078,270 | | \$0.13037 |

Concentric

| Customer Class | Average Retail Rate by Class (\$/kWh) | kWh Load (Annual) | % of Customers by Load for Decorah | 2017 Weighted / Average Rate - Alliant |
|--------------------|---------------------------------------|-------------------|------------------------------------|--|
| Residential | \$0.1638 | 21,634,000 | 26.50% | \$ 0.0434 |
| Commercial | \$0.1404 | 31,157,000 | 38.16% | \$ 0.0536 |
| Industrial | \$0.0833 | 28,656,000 | 35.10% | \$ 0.0292 |
| Municipal Lighting | \$0.2744 | 205,000 | 0.25% | \$ 0.0007 |
| TOTAL | | 81,652,000 | | \$ 0.1269 |

- **Based on 2017 actual sales and revenues-adjusted to reflect full 12 months of proposed price increase**

Comparison of Estimated Transaction and Startup Costs

Decorah Power Feasibility Study excludes or underestimates expected startup costs

| Startup Cost Category | Concentric Base Case (2021\$) | Decorah Power (2018\$) |
|--|-------------------------------|------------------------|
| Transaction Costs | | |
| Legal/Consulting Fees | \$2,207,626 | \$500,000 |
| Regulatory Fees | - | \$250,000 |
| Other Fees | \$_____ | <u>\$150,000</u> |
| <i>Subtotal</i> | <i>\$2,207,626</i> | <i>\$1,000,000</i> |
| Startup Costs | | |
| 1 Year of A&G Labor Costs | - | \$420,000 |
| Software/Billing Systems | - | \$50,000 |
| Operations Startup Costs | \$1,103,813 | - |
| Initial Capex (4 yrs.) | \$3,663,512 | - |
| Initial Debt Service Reserve | \$1,692,763 | - |
| Flotation Costs | \$719,253 | |
| Inventory(Transformer, Conductor) | \$466,012 | \$23,355 |
| Power Supply Startup Costs | \$1,103,813 | - |
| Working Capital | <u>\$1,327,014</u> | <u>\$500,000</u> |
| <i>Subtotal</i> | <i>\$10,076,180</i> | <i>\$993,355</i> |
| Total Estimated Transaction and Startup Costs | \$12,283,806 | \$1,993,355 |

- **Resulting startup cost estimate is ~16% of Concentric's base case assumption**
- **Total startup costs are approximately 6 times Decorah Power's total estimate**
- **Dollars shown are in the year of estimated MEU startup, assuming IUB approval**

Local Operating Costs

Decorah Power's average expected operating cost (\$/kWh) will be 35% more than predicted by Decorah Power, which will impact customer rates

| Cost Category | Concentric Base Case (2021\$ 000) | Decorah Power (2021\$ 000) |
|--|--------------------------------------|-------------------------------|
| Operating Revenues | \$11,357 | \$12,046 |
| Projected Operating Expense | | |
| Replacement Energy and Capacity | \$3,214 | |
| Power Supply Expense | - | \$5,802 |
| Transmission Expense | \$2,302 | \$2,339 |
| Distribution Expense | - | \$745 |
| Customer Expense | \$223 | \$298 |
| G&A Expense | \$819 | \$447 |
| O&M Fee | \$1,247 | \$112 |
| EE/DSM Programs | \$403 | \$602 |
| Energy Assistance Program | \$3 | |
| Total Operating Expenses | <u>\$8,213</u> | <u>\$10,346</u> |
| General Fund Transfer (5% of Gross Revenue) | - | \$602 |
| Replacement Property Taxes | \$83 | - |
| Renewals and Replacements (15 Yr. Asset Life) | - | \$339 |
| Total Debt Service (includes debt financed renewals/replacements) | <u>\$3,582</u> | <u>\$549</u> |
| Total Expense | \$11,879 | \$12,046 |
| Margin/Operating Reserves | N/A | \$210 |
| Average Retail Rate Analysis | | |
| Total Sales (kWh) | 81,652,000 | 126,078,269 |
| Average MEU Rate (\$/kWh) | \$0.1455 | \$0.0908 |
| Average Alliant Rate (\$/kWh) | \$0.1391 | \$0.1331 |
| Updated Rate Analysis (corrected sales - kWh) | | 81,652,000 |
| Average MEU Rate (\$/kWh) | | \$0.1197 |
| Average Alliant Rate (\$/kWh) | | \$0.1417 |

Total Costs – Comparisons

| Assumption | Concentric Base Case (2021\$ million) | Decorah Power (2018\$ million) |
|---|--|--|
| System Acquisition Costs | | |
| Physical Assets | \$20.0 | \$5.6 |
| Incremental Pre-Muni Capex | \$3.3 | - |
| Separation/Reintegration | \$11.0 | - |
| Going Concern | \$4.4 | - |
| Total | \$38.7 | \$5.6 |
| Transaction Costs | | |
| Legal/Consulting | \$2.2 | <i>(included in Startup Costs below)</i> |
| Flotation | \$0.7 | - |
| Total | \$2.9 | |
| Startup Costs | \$9.4 | \$2.0 |
| Total Acquisition, Transaction and Startup Costs | \$51.0 | \$7.6 |

- Expected acquisition date affects the Total Cost difference by \$3.3 million, as Concentric has included the ongoing replacement capital until an assumed transaction date of 2021
- Excluding that difference, Total Costs differ by roughly \$40 million:
\$51.0mm - \$3.3mm - \$7.6mm = \$40.1mm

$$(\text{Total Costs}) - (\text{pre-muni capex}) - (\text{DP Total Costs}) = \text{Cost Differential}$$

Financial Assumptions

| Assumption | Concentric Base Case (2021\$) | Decorah Power (2018\$) |
|-------------------------------|-------------------------------|------------------------|
| Asset Financing | | |
| Debt Issue | \$23,300,591 | \$5,562,000 |
| Taxable Rate | 6.00% | 5.00% |
| Taxable Bond Term | 30 years | 20 years |
| Annual Debt Payment | \$1,692,763 | \$446,000 |
| Startup Cost Financing | | |
| Debt Issue | \$24,649,635 | \$2,000,000 |
| Tax Exempt Rate | 4.50% | 3.50% |
| Tax-Exempt Bond Term | 30 years | 20 years |
| Annual Debt Payment | \$1,559,503 | \$160,000 |
| Reserve Fund Interest | \$42,319 | - |

- **Concentric estimates total debt of \$48.0 million (in addition to working capital and reserve fund of \$3.0 million) to acquire and run the municipal utility, compared with Decorah Power's estimate of \$7.6 million**
- **This would be approximately \$13,100 of debt for each customer of the Decorah MEU**

Average System Retail Rate Estimates

When including comparable costs in rates, a Decorah MEU will be more expensive from day one –and the costs will continue to increase more over 20 years

| Year | Decorah Power Option 3 MEU 70/30 (\$/kWh) | Decorah Power Projected Alliant Rate (\$/kWh) | Decorah Power Difference (\$/kWh) | Concentric Projected Municipal Rate (\$/kWh) | Concentric Projected Alliant Rate (\$/kWh) | Concentric Difference (\$/kWh) |
|------|---|---|-----------------------------------|--|--|--------------------------------|
| 2018 | \$0.0908 | \$0.1331 | (\$0.0423) | | | |
| 2019 | \$0.0934 | \$0.1359 | (\$0.0425) | | | |
| 2020 | \$0.0947 | \$0.1388 | (\$0.0441) | | | |
| 2021 | \$0.0967 | \$0.1417 | (\$0.0450) | \$0.1455 | \$0.1391 | \$0.0064 |
| 2022 | \$0.1006 | \$0.1447 | (\$0.0441) | \$0.1507 | \$0.1391 | \$0.0116 |
| 2023 | \$0.1043 | \$0.1477 | (\$0.0434) | \$0.1539 | \$0.1391 | \$0.0148 |
| 2024 | \$0.1070 | \$0.1508 | (\$0.0438) | \$0.1564 | \$0.1433 | \$0.0131 |
| 2025 | \$0.1087 | \$0.1540 | (\$0.0453) | \$0.1636 | \$0.1433 | \$0.0203 |
| 2026 | \$0.1112 | \$0.1572 | (\$0.0460) | \$0.1651 | \$0.1433 | \$0.0218 |
| 2027 | \$0.1141 | \$0.1605 | (\$0.0464) | \$0.1687 | \$0.1476 | \$0.0211 |

- **The average U.S. home uses 10,700 kWh per year**
- **In year one, Decorah MEU customers would pay \$69 more than Alliant Energy customers each year**
- **By 2027, Decorah MEU customers would pay \$226 more each year**

Estimated Savings

While Decorah Power's study projects savings, by 2027, a MEU would cost Decorah's citizens an extra \$1.7 million each year

| Item | Decorah Power Year 1 (2021) | Decorah Power Year 10 (2027) | Concentric Year 1 (2021) | Concentric Year 10 (2027) |
|---|--------------------------------|---------------------------------|--------------------------------|---------------------------------|
| Total Annual Sales (kWh) | 126,078,269 | 126,078,269 | 81,652,000 | 81,652,000 |
| Decorah MEU Average Rate (\$/kWh) | \$0.0967 | \$0.1141 | \$0.1455 | \$0.1687 |
| Total Decorah MEU Revenue | \$12,189,000 | \$14,382,000 | \$11,878,965 | \$13,776,592 |
| Projected Alliant Energy Average Rate (\$/kWh) | \$0.1417 | \$0.1605 | \$0.1391 | \$0.1476 |
| Total Projected Alliant Energy Revenue | \$17,865,000 | \$20,236,000 | \$11,356,865 | \$12,048,498 |
| Difference between Decorah MEU and Alliant Energy Revenue (Savings) | (\$5,676,000) | (\$5,854,000) | \$522,100 | \$1,728,095 |
| % Difference | (31.8%) | (28.9%) | 4.4% | 14.3% |

Standard for Reviewing a Proposed Municipalization

The IUB looks at numbers and many other factors not included in the feasibility study to determine if municipalization is in the interest of customers

Factors considered by the Iowa Utilities Board when deciding if municipalization is in the public interest include:

1. Efficiency of Service
2. Adequacy of Service
3. Implementation Plan
4. Net Present Value (NPV) of Economic Benefits
5. Other Non-Economic Factors:
 - Effect on coordinated electric service at retail level.
 - Promotion of efficient and adequate service.
 - City's plan for operating the electric utility

Service Boundaries – IUB Precedent

History suggests that Decorah Power would not be allowed to serve customers outside of city limits

- Cities requesting municipalization in the last two cases proposed to include selected service territory beyond city limits. The IUB has drawn a line at the city limits.
- The IUB has previously determined that a new municipal utility would have to pay for the infrastructure needed to separate Alliant Energy's customers outside the city from the new municipal system.
- Decorah Power has not included any costs for this process. Concentric is estimating this cost at \$11 million.

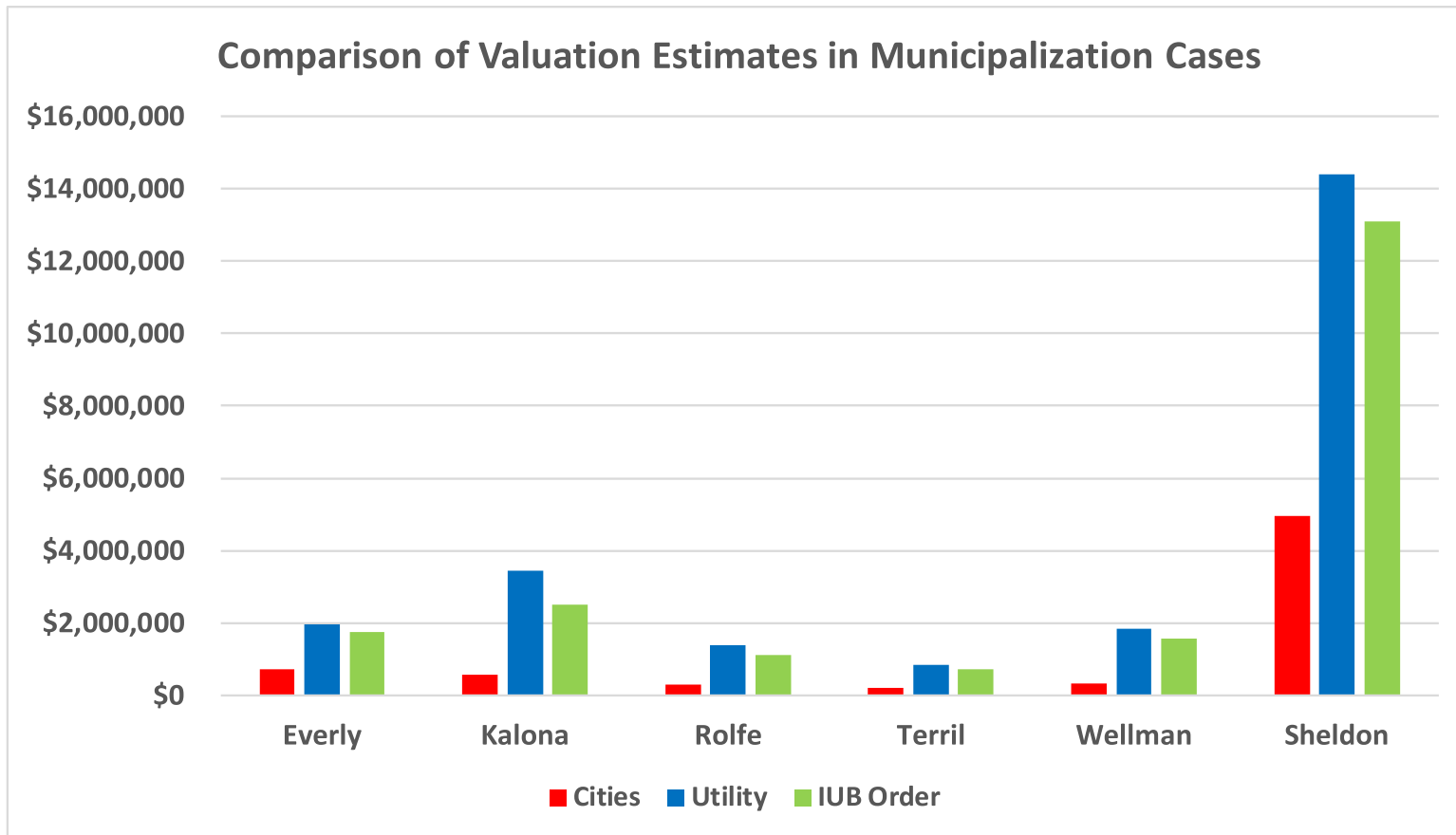
Takeaways:

- **Even if allowed to serve areas outside the city, a Decorah MEU would have higher costs than Alliant Energy**
- **Without those additional customers to offset costs, the negative impact on Decorah citizens of higher costs would grow larger**

Valuation Methodology – IUB Precedent

Concentric's methodology is consistent with IUB precedent

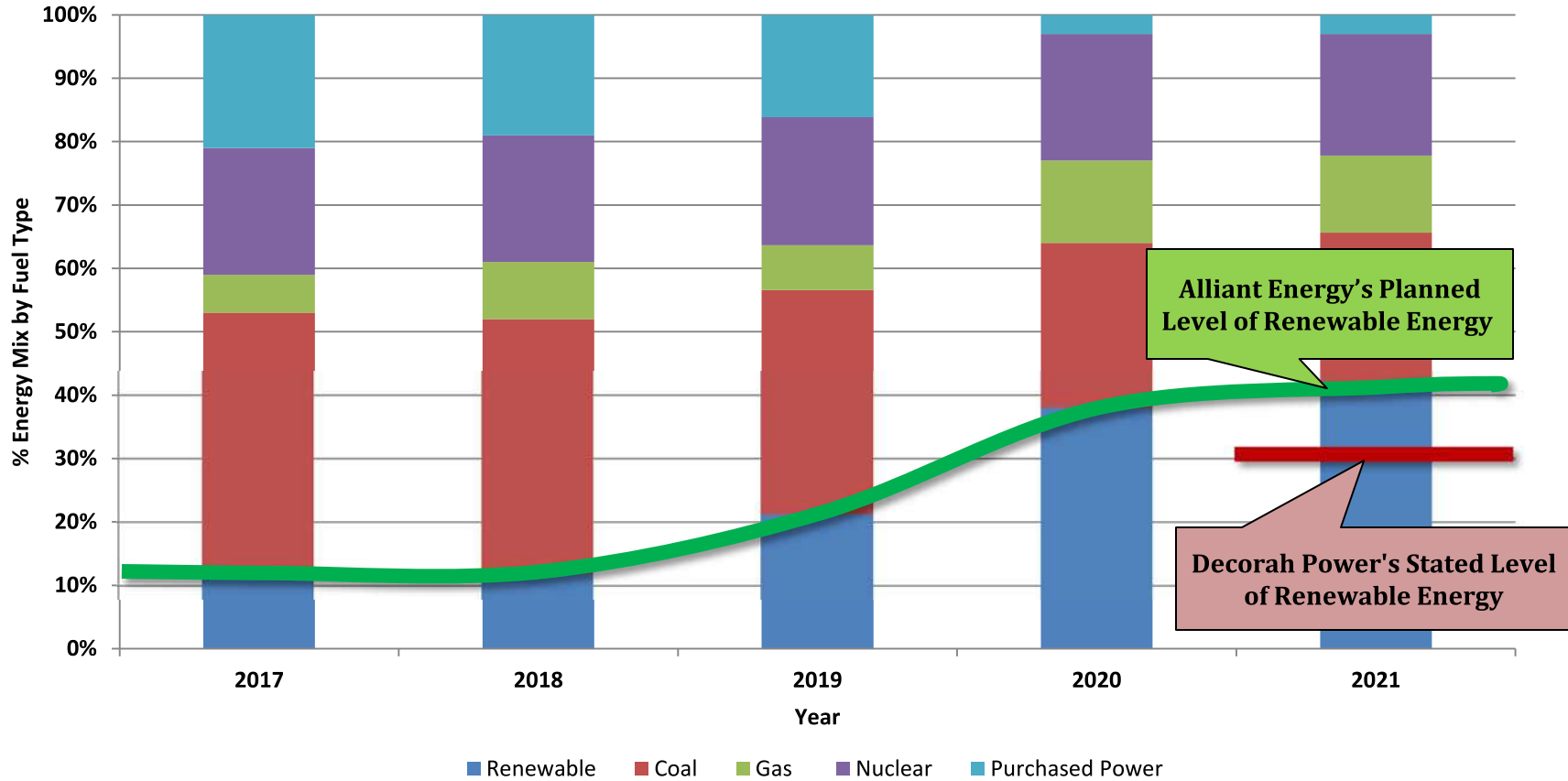
Municipal Valuation: In the most recent case, the IUB ruled that the asset buyout and reintegration costs averaged approximately 80% of Alliant Energy's estimate.



Sustainability – Comparisons

Alliant Energy will consistently deliver more renewable energy than Decorah Power plans to provide

Alliant Energy Iowa Percent Energy Mix by Fuel Type

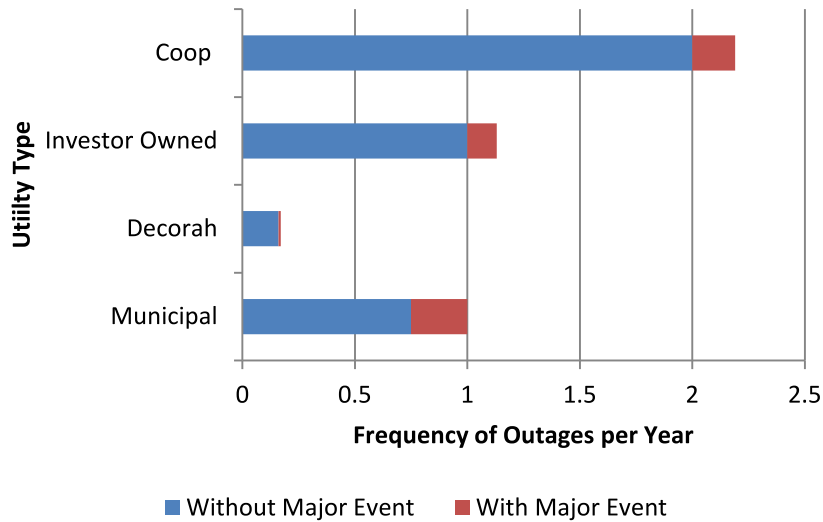


Reliability

Alliant Energy provides reliability that exceeds the average municipal utility

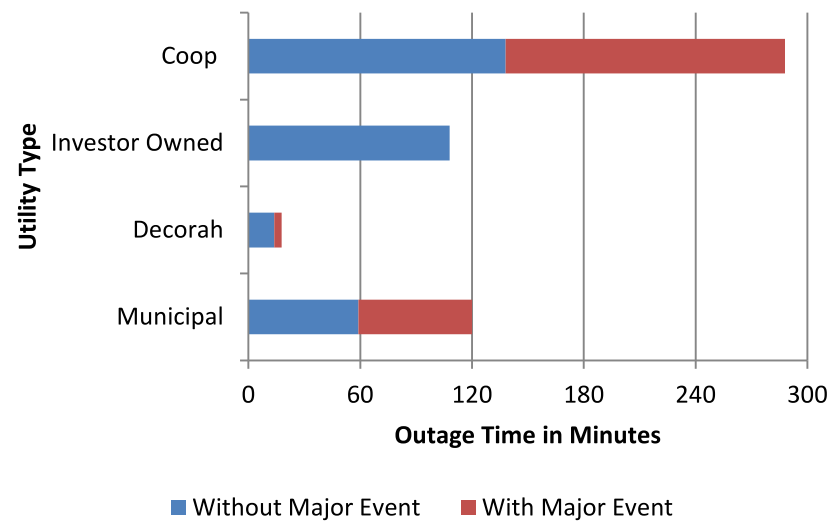
Frequency of Outages by Utility Type

Data Source: EIA 2015 and Alliant Energy Corporate Scorecard



Minutes of Outage Time by Utility Type

Data Source: EIA 2015 and Alliant Energy Corporate Scorecard



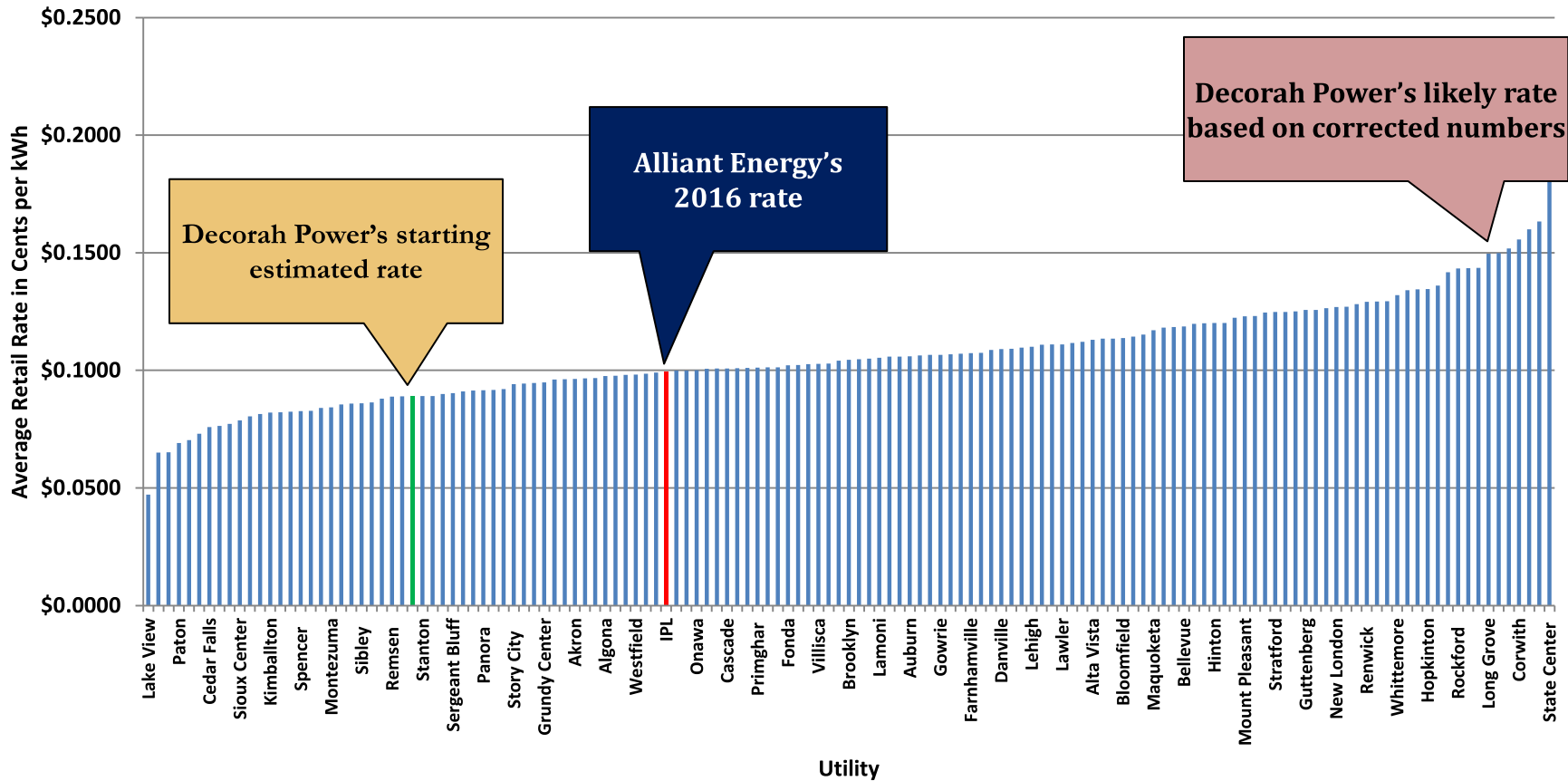
Customer reliability will be better with Alliant Energy than with a start-up municipal utility or an outsourced service

Rate Comparisons

Alliant Energy is very competitive with municipals in Iowa

Average Retail Rates in Iowa - 2016

Data Source: ME-1 and IE-1 Reports to Iowa Utilities Board



- The above data is based on 2016 information, which is the most recent available. This data does not include any price increases since the data was filed with the IUB.

Conclusions:

- **Acquisition:** Decorah Power estimated cost to acquire the system is only ~25% of Concentric's estimated acquisition cost, based on historical IUB decisions
- **Sales:** Decorah Power's estimated energy sales are about 50% higher than actual energy sales
- **Rates:** Decorah Power has overstated Alliant Energy's Decorah average retail electric rate
- **Boundaries:** A plan to municipalize outside city boundaries is not consistent with Iowa Utilities Board rulings in 6 prior cases
- **Response:** Outsourcing of system operations will result in delayed response times and a less reliable system
- **Renewables:** Decorah Power's proposed 30% renewable energy mix in year one of operation is less than Alliant Energy's plan for 40% of renewable energy by 2021
- **Start date:** A proposed 2018 start of operation is not realistic, past cases took up to four years

The proposed Decorah Municipal Electric Utility will result in higher costs, a less reliable system and less renewable energy than continued service by Alliant Energy