Accounting for Cloud Computing

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Cloud Computing Agenda

- Company Overviews
  - Ameren
  - Xcel Energy
- Cloud Computing Overview
- Requirements for Capitalization
- Implementation Challenges
- Possible Changes to Current Practice
  - Emerging Accounting Guidance
  - National Association of Regulatory Utility Commissioners (NARUC)
- Questions
Company Description

Fully rate-regulated electric and gas utility

Ameren Business

Ameren Missouri
- Electric generation, transmission, and a natural gas distribution business licensed by MoPSC
- Serves 1.2 million electric and 0.9 million gas customers
- 10,300 MW of total generation capability

Ameren Illinois Electric Distribution
- Electric distribution business in Illinois
- Serves 1.2 million electric customers

Ameren Illinois Natural Gas
- Natural gas distribution business
- Serves 0.8 million gas customers

Ameren Transmission
- Electric transmission business owned by Ameren Transmission Company
- Ameren Illinois invests in local renewable energy value projects
Solid Operating Performance

Electric rates are low

Average Residential Electricity Prices¹

<table>
<thead>
<tr>
<th>City</th>
<th>Price/KWh</th>
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<tbody>
<tr>
<td>Ameren Missouri</td>
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<tr>
<td>Miami</td>
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<td>San Diego</td>
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<tr>
<td>New York</td>
<td>36</td>
</tr>
</tbody>
</table>

Strong safety performance

Safety Performance

Recordable Cases

Lost Workday Away Cases

Distribution System Reliability²

Outage Frequency (per customer per year)

Outage Duration (min)

¹ Source: EEI Typical Bills and Average Rates Report for the twelve month period ending June 30, 2017. Includes major U.S. metropolitan areas for which data is available.

² As measured by System Average Interruption Frequency Index (SAIFI), which measures total number of interruptions per customerserved, and System Average Interruption Duration Index (SAIDI), which measures the average outage duration for each customer served.
Ameren Corporation Net Plant at 12/31/2017 - $21 Billion

- Electric Transmission: 18%
- Electric Distribution: 36%
- Nuclear Generation: 12%
- Hydro Generation: 10%
- Coal Generation: 6%
- Other Generation: 4%
- 3%
- 2%
- 9%
**Xcel Energy**

- 3.6 million electric customers
- 2.0 million natural gas customers
- National wind leader for over a decade
- Outside of California No. 1. in Renewable Energy Sales

**Xcel Energy Inc. | System Energy Mix**

Carbon reduction of 45% projected by 2021, working towards a reduction target of 60% by 2027. *The 2027 forecast includes assumptions consistent with the Colorado Energy Plan.*

- 2005: 3% Coal, 1% Natural Gas, 56% Hydro, 23% Nuclear, 12% Other
- 2016: 1% Coal, 19% Natural Gas, 37% Hydro, 25% Nuclear, 4% Other

**Mission Priorities**

- Lead the Clean Energy Transition
- Enhance the Customer Experience
- Keep Bills Low
Net Plant ~$34B

Net plant represents gross plant less accumulated depreciation. The allocation of net plant is representative of the functional allocation.
Cloud Computing or Software as a Service (SaaS)

- What is it?
  - Software model in which a third-party provider hosts applications and makes them available to customers over the Internet
  - Utility does not take possession of the software since it is hosted and maintained by the provider
  - Utility pays annual fee for use of software, hosting and maintenance

- Benefits
  - Removes the need for organizations to install and run applications in their own data centers
  - More frequent and easier upgrades
  - More security from cyber attacks with most up-to-date versions

Problem: The utility is generally left without an asset to capitalize on.
Not growing rate base & difficult to get additional O&M money

Result: Utilities struggle to make best the economic decision because of this.
Requirements for Capitalization of Cloud Software

- Hosting arrangements should be accounted for using the internal-use software guideline for the customer:
  - Has the contractual right to take possession of the software at any time during the life of the contract without significant penalty, and
  - It is feasible for the customer to either run the software on its own hardware or have another party—unrelated to the vendor—to host the software.

- Arrangements not meeting both of the above criteria should be accounted for as software license arrangements.
Have you successfully capitalized on cloud-based software’s advantages?
Implementation Challenges

• How much of the service fee is related to Software?
  • When possible the vendor should provide a breakdown of costs into software, hosting, and maintenance
  • If a breakout is not provided by the vendor, accounting should allocate costs using a reasonable estimate

• What is a significant penalty?
  • Vendor could impose a penalty outright to assist in moving hosting site
  • If prepayment is made, may not be able to recoup future year’s maintenance out of the penalty as well

• What constitutes feasibility to run the software on its own or with a different third party?
  • Can company absorb this; what would the plan be to take in house or move
  • How much would that cost? Not part of penalty phase, but if cost is extreme
  • Can software run as is, or is there a diminution of the product?

• For cloud computing arrangements that appear to meet the capitalization requirement, an indicator that an entity has acquired a software asset would be a renewal option for an average annual cost in comparison to the initial term of the agreement. This could be an indication that a portion of the payments over the initial term represent the acquisition
How would you define a significant penalty?
Steps to Capitalize a SaaS Asset - Ameren

- Negotiated terms with software vendor.
  - Needed legal review of order form
  - Also needed to amend Master Service Agreement

- Software and Maintenance component were broken out
  - Based on Experience of staff as software company was reluctant to provide direct support
  - Had to negotiate that vendor would still support the product if Ameren kept software hosted by Ameren or a designated 3rd party

- Had the IT department document how it would manage the Software going forward
  - Managed without diminution of the Software, and it would be a reasonable decision given the steps that would need to be taken to run the software without contracted support

- Put all of this into a checklist, and ran by auditors

- Auditors passed on providing formal feedback based on immateriality, but did note it would be feasible but the more often that this practice was undertaken the less likely company could handle running the software apart from the vendor
Steps to Capitalize a SaaS Asset – Xcel Energy

Do the software license fees cover a multi-year term and are prepaid in full?

Yes

Does Xcel have the contractual right to take possession of the software at any time during the hosting period?

Yes

Is it feasible to either run the software on our own hardware or contract with another unrelated party to host the software?

Yes

Are the costs* to be on-prem or move to another host in an environment less than $100,000?

No

Are the costs* less than 15% of the total capitalized costs?

No

Project is O&M

Costs considered a penalty:
- Payment required to take possession
- Requirements that many months notice be provided
- Significant transfer costs or internal costs to support the software
- Prepaid hosting fees that will not be returned
Xcel Energy, Capitalization Example - AutoGrid

• Project Details
  • Prepay for three years
  • Contract allowed for Xcel to take possession of the software at any time
    • It was feasible to Xcel to do so

• Cost breakdown
  • Licenses: $3.7 million
  • Hosting: $400k
  • Implementation costs: $3.6 million
  • Analysis to move back on-prem if desired - $250k
    • Less than 15% of capitalized costs

• Result: Capitalized $7.3 million as a SaaS asset
Possible Changes to Current Guidance – Emerging Issues Task Force (EITF)

- New pronouncement allows for the capitalization of implementation costs for all cloud-based solutions, whether capitalized or accounted for as a service contract
- No change in accounting for hosting fees
- Implementation costs associated with a hosting arrangement that is deemed a service contract (O&M) should be:
  - Recognized in the income statement over the term of the hosting arrangement
  - Should be presented in the same line item as the hosting fees (i.e. O&M)
- Proposed changes in disclosure requirements of implementation costs could be challenging
  - Intent is to provide users with information about the type and amount of implementation costs capitalized
  - These disclosures would be required for both internal-use software and hosting arrangements
- Comments on the proposed ASU were due by April 30th
Do you currently capitalize implementation costs for SaaS projects?
Possible Changes to Current Guidance – NARUC

- In October of 2016, NARUC stated the following:
  - "RESOLVED, That NARUC encourages State regulators to consider whether on-premise solutions should receive similar regulatory accounting treatment, in the same way as on-premise solutions, to earn a rate of return and would be paid for out of a utility’s capital budget."

- Why?
  - To ensure that utilities are free to make software investments based on which on-premises Solutions, best meets both the needs of the utility and its customers.
  - NARUC thought that treating a service contract without a rate of return on investment might motivate utilities choosing on-premises solutions even if the cloud solution was a better fit.

- Ameren has brought a test case before the Illinois Commerce Commission. If approved:
  - Treat the service contract as an intangible asset for Regulatory Purposes, and
  - Set up a Regulatory Asset for SEC Purposes
Questions?