Committee on Water
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Ratemaking and Cloud Computing
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Regulatory Accounting for Cloud Computing Costs

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Disclaimer

The opinions expressed in this presentation are my personal opinions, they do not necessarily reflect the opinions of the Washington Utilities and Transportation Commission, its commissioners or other staff members.
Costs of Cloud Services

- Migration Costs
- Operating Costs
Migration Costs

Cloud Services
Migration Costs

The cost of migrating from an on-premise IT solution to a cloud based solution.

- Data conversion,
- Data Re-engineering,
- Storage,
- Retraining,
- Remodeling,
- Stranded Costs.
Migration Costs

**Issue:** The inability under GAAP for companies to capitalize the costs of migration to cloud services rather, the costs must be expensed as incurred.
GAAP Accounting Standards Update 2015-05 does not allow the capitalization of cloud migration costs unless, some form of ownership exists.
Accounting Standards 350-40

Capitalize the costs of hosted services only if:

1. Customer has right to take possession without significant penalty and
2. It is feasible to either run the software on company hardware or contract with another party unrelated to vendor to host software. *(paraphrased)*
a. It is probable (as defined in Topic 450) that future revenue in an amount at least equal to the capitalized cost will result from inclusion of that cost in allowable costs for rate-making purposes.
b. Based on available evidence, the future revenue will be provided to permit recovery of the previously incurred cost rather than to provide for expected levels of similar future costs. If the revenue will be provided through an automatic rate-adjustment clause, this criterion requires that the regulator’s intent clearly be to permit recovery of the previously incurred cost.
**Conclusion:** The cost of migrating from an “on-premise” IT solution to a cloud based solution may be capitalized for later recover if allowed by the commission.
Operating Costs

The cost associated with the operation the cloud service normally measured on an annual basis.

- Annual fees
- Fees and charges measured by:
  - Processor time usage,
  - Storage usage,
  - Capacity,
  - Other system Demands.
Issue: The inability of a company to earn a return on the cloud services expense.
WHEREAS. The business of electric, gas, and water utilities is changing rapidly. Utilities are now faced with how best to respond to modern customer expectations, technological innovation, and new regulatory drivers; and

WHEREAS. To thrive in the future, utilities may need to modernize and transform their business operations. A key element of this may be access to state-of-the-art commercial cloud computing services, which is increasingly delivered via a "cloud-based" or "software-as-a-service" model; and

WHEREAS. The various functionalities provided by commercial cloud computing services may help utilities fully realize the economic, social, and environmental value of the smart grid and electric grid; and

WHEREAS. Other highly regulated industries like financial services, healthcare, telecommunications, and auto insurance use commercial cloud computing services and are delivering a superior customer experience. These industries now outperform utilities in customer satisfaction rankings, according to surveys from J.D. Power and Associates; and

WHEREAS. Federal government agencies, including the Departments of Treasury, State, and Defense, are rapidly transitioning to commercial cloud computing services and cloud-based solutions through a federal requirement to "evaluate, test, secure cloud computing options before making any new IT investments"; and

WHEREAS. In addition to enhanced security, commercial cloud computing services can provide increased reliability and flexibility. In contrast to on-premise solutions, cloud-based solutions can be frequently and easily updated with minimal business disruptions, allowing utilities to keep pace with innovation and changing technology; and

WHEREAS. Commercial cloud computing services and traditional on-premise software have different business models and payment streams. Purchasing cloud computing services typically involves periodic payments for the services consumed, while purchasing on-premise software requires up-front payments and a regular maintenance agreement.

WHEREAS, under current guidelines, a utility may classify investments in legacy hardware and supporting on-premise software as a capital expense, on which it can receive a rate of return. However, if a utility invests in cloud-based technologies, it typically treats the investment as an operating expense, on which it does not receive a rate of return; and

WHEREAS. The disparity in accounting treatments between these two software approaches creates regulatory incentives for utilities to avoid cloud computing and creates unintended financial burdens that hinder utilities from realizing the benefits that so many other industries are experiencing with cloud-based software; and
WHEREAS, Under current guidelines, a utility may classify investments in legacy hardware and supporting on-premise software as a capital expense, on which it can receive a rate of return; however, if a utility invests in cloud-based technologies, it typically treats the investment as an operating expense, on which it does not receive a rate of return; and
**WHEREAS,** Under current guidelines, a utility may classify investments in legacy hardware and supporting on-premise software as a capital expense, on which it can receive a rate of return; however, if a utility invests in cloud-based technologies, it typically treats the investment as an operating expense, on which it does not receive a rate of return; *and*

- Investments in Legacy on-premise Hardware and Software, classified as capital expenditures, do receive a rate of return.
- Investments in Cloud Services classified, as operating expenses, do not receive a rate of return.
- Therefore there is a disincentive to invest in cloud based services.
Investments in Cloud Services classified as operating expenses do not receive a rate of return.

• Investments are never classified as expenses,
• Expenses never receive a rate of return,
• Working capital does receive a rate of return.

Investments in working capital that fund costs associated with Cloud Services do receive a rate of return.
Definition of Working Capital

Working Capital is:
“...the average amount of capital provided by investors, over and above the investment in plant and other specifically measured rate base items, to bridge the gap between the time expenditures are required to provide services and the time collections are received for such services.”

Accounting for Public Utilities
Hahne & Aliff 12/2015
## Common Regulatory Rate Base (avg or year end)

<table>
<thead>
<tr>
<th>RATE BASE PLANT IN SERVICE</th>
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<tbody>
<tr>
<td>31 Intangible</td>
<td>$156,057</td>
</tr>
<tr>
<td>32 Production</td>
<td>832,833</td>
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<tr>
<td>33 Transmission</td>
<td>430,613</td>
</tr>
<tr>
<td>34 Distribution</td>
<td>970,455</td>
</tr>
<tr>
<td>35 General</td>
<td>233,266</td>
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<tr>
<td>36 Total Plant in Service</td>
<td>2,623,224</td>
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</table>

<table>
<thead>
<tr>
<th>ACCUMULATED DEPRECIATION/AMORT</th>
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<tbody>
<tr>
<td>37 Intangible</td>
<td>(30,914)</td>
</tr>
<tr>
<td>38 Production</td>
<td>(351,625)</td>
</tr>
<tr>
<td>39 Transmission</td>
<td>(135,624)</td>
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<tr>
<td>40 Distribution</td>
<td>(295,383)</td>
</tr>
<tr>
<td>41 General</td>
<td>(80,093)</td>
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<tr>
<td>42 Total Accumulated Depreciation</td>
<td>(893,639)</td>
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<table>
<thead>
<tr>
<th>NET PLANT</th>
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<tr>
<td>43 NET PLANT</td>
<td>1,729,585</td>
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<tr>
<th>DEFERRED TAXES</th>
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<tr>
<td>44 DEFERRED TAXES</td>
<td>(354,706)</td>
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<tr>
<th>DEFERRED DEBITS AND CREDITS</th>
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<tr>
<td>45 Net Plant After DFIT</td>
<td>1,374,879</td>
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<tr>
<th>WORKING CAPITAL</th>
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<tr>
<td>47 WORKING CAPITAL</td>
<td>65,480</td>
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<table>
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<tr>
<th>TOTAL RATE BASE</th>
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<tbody>
<tr>
<td>48 TOTAL RATE BASE</td>
<td>1,444,926</td>
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</table>
Conclusion: Companies do earn a return on their investments in cloud services through working capital.

To artificially capitalize an expense would introduce double recovery on investment.
Clarification of UtilityDrive Comments
The company’s investment funding the monthly charge for cloud-based services should be rate based in working capital.
Included in each regulated company's rate base is a working capital component. It is the working capital component which includes the investment associated with cloud services. A capitalized expense, as proposed by some, is inconsistent with the short-term characteristics of the cloud computing business model.
Clarification of Utility Drive
Comments

I do not oppose changing the rules just because companies are going to the cloud anyway. I oppose changing the rules because the change suggests creating long-term assets out of short-term operating costs; that is simply incorrect accounting, GAAP or regulatory basis. Companies going or not going to the cloud is irrelevant.
Questions?

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