Electric Utilities & New FERC XBRL Requirements

November 3, 2020
Agenda

• XBRL Fundamentals
• CPE Questions
• Instructions on preparing Form 1 and 3-Q for electric utilities
• CPE Questions
• Other programs and events
XBRL (eXtensible Business Reporting Language)

• Open
• Nonproprietary
• Maintained by XBRL International – global nonprofit standards body, responsible for maintaining and expanding upon the specification, multiple country jurisdictions
• Supported by XBRL US – national standards setter, responsible for development work and adoption efforts in the United States
• XBRL is not:
  • A technical format like XML or JSON
  • A product
XBRL gives meaning to data

<table>
<thead>
<tr>
<th>CURRENT AND ACCRUED ASSETS</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>34 Cash and Working Funds (Non-major Only) (130)</td>
<td>0</td>
<td>0</td>
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<tr>
<td>35 Cash (131)</td>
<td>71,327,413</td>
<td>57,718,289</td>
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<tr>
<td>36 Special Deposits (132-134)</td>
<td>6,866,597</td>
<td>6,951,084</td>
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<tr>
<td>37 Working Fund (135)</td>
<td>147,415</td>
<td>146,305</td>
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<tr>
<td>38 Temporary Cash Investments (136)</td>
<td>1,220,000,000</td>
<td>385,000,000</td>
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<tr>
<td>39 Notes Receivable (141)</td>
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<tr>
<td>40 Customer Accounts Receivable (142)</td>
<td><strong>1,273,685,556</strong></td>
<td><strong>1,294,343,209</strong></td>
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<tr>
<td>41 Other Accounts Receivable (143)</td>
<td>3,128,236,294</td>
<td>1,294,343,209</td>
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<tr>
<td>42 (Less) Accum. Prov. for Uncollectible Acct.-Credit (144)</td>
<td>56,198,372</td>
<td>64,467,202</td>
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<tr>
<td>43 Notes Receivable from Associated Companies (145)</td>
<td>34,585,453</td>
<td>21,355,991</td>
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<tr>
<td>44 Accounts Receivable from Assoc. Companies (146)</td>
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<tr>
<td>45 Fuel Stock (151)</td>
<td>227</td>
<td>1,566,341</td>
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<td>46 Fuel Stock Expenses Undistributed (152)</td>
<td>227</td>
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<tr>
<td>47 Residuals (Elec) and Extracted Products (153)</td>
<td>227</td>
<td></td>
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<tr>
<td>48 Plant Materials and Operating Supplies (154)</td>
<td>442,660,412</td>
<td>385,624,133</td>
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<tr>
<td>49 Merchandise (155)</td>
<td>227</td>
<td></td>
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<tr>
<td>50 Other Materials and Supplies (156)</td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>51 Nuclear Materials Held for Sale (157)</td>
<td>202-203/227</td>
<td>0</td>
</tr>
<tr>
<td>52 Allowances (158.1 and 158.2)</td>
<td>228-229</td>
<td>306,185,501</td>
</tr>
</tbody>
</table>

Concept: Customer Accounts Receivable
Data Type: Monetary
Documentation (definition)
Entity: Pacific Gas & Electric
Period: 2019
Units: US dollars

XBRL for Electric Utilities, November 3, 2020
Digital “dictionary” of concepts representing data needed to be reported
## Schedule Mapping

### Comparative Balance Sheet (Assets and Other Debits)

<table>
<thead>
<tr>
<th>Row</th>
<th>Column</th>
<th>Number</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>c</td>
<td>101-106, 114</td>
<td>Utility Plant</td>
</tr>
<tr>
<td>3</td>
<td>d</td>
<td>101-106, 114</td>
<td>Utility Plant</td>
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<tr>
<td>4</td>
<td>c</td>
<td>107</td>
<td>Construction Work in Progress</td>
</tr>
<tr>
<td>5</td>
<td>d</td>
<td>107</td>
<td>Construction Work in Progress</td>
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<tr>
<td>8</td>
<td>c</td>
<td>120.1</td>
<td>Net Utility Plant (Enter Total of lines 4 less 5)</td>
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<td>9</td>
<td>d</td>
<td>120.1</td>
<td>Net Utility Plant (Total of lines 4 less 5)</td>
</tr>
<tr>
<td>10</td>
<td>c</td>
<td>120.2</td>
<td>Nuclear Fuel in Process of Ref., Conv., Enrich., and Fab.</td>
</tr>
<tr>
<td>11</td>
<td>d</td>
<td>120.2</td>
<td>Nuclear Fuel in Process of Ref., Conv., Enrich., and Fab.</td>
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<tr>
<td>12</td>
<td>c</td>
<td>120.3</td>
<td>Nuclear Fuel Materials and Assemblies - Stock Account</td>
</tr>
<tr>
<td>13</td>
<td>d</td>
<td>120.3</td>
<td>Nuclear Fuel Materials and Assemblies - Stock Account</td>
</tr>
<tr>
<td>14</td>
<td>c</td>
<td>120.5</td>
<td>Nuclear Fuel Assemblies in Reactor</td>
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<tr>
<td>15</td>
<td>d</td>
<td>120.5</td>
<td>Nuclear Fuel Assemblies in Reactor</td>
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<tr>
<td>16</td>
<td>c</td>
<td>120.6</td>
<td>Nuclear Fuel in Process of Refinement, Conversion, Enrichment, and Fabrication</td>
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<tr>
<td>17</td>
<td>d</td>
<td>120.6</td>
<td>Nuclear Fuel in Process of Refinement, Conversion, Enrichment, and Fabrication</td>
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<tr>
<td>18</td>
<td>c</td>
<td>120.8</td>
<td>Nuclear Fuel Materials and Assemblies - Stock Account Major Only</td>
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<td>19</td>
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<td>Nuclear Fuel Materials and Assemblies - Stock Account Major Only</td>
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<td>20</td>
<td>c</td>
<td>120.9</td>
<td>Nuclear Fuel Assemblies in Reactor Major Only</td>
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<td>21</td>
<td>d</td>
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<td>Nuclear Fuel Assemblies in Reactor Major Only</td>
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<tr>
<td>22</td>
<td>c</td>
<td>120.4</td>
<td>Spent Nuclear Fuel</td>
</tr>
<tr>
<td>23</td>
<td>d</td>
<td>120.4</td>
<td>Spent Nuclear Fuel</td>
</tr>
<tr>
<td>24</td>
<td>c</td>
<td>120.6</td>
<td>Nuclear Fuel Under Capital Leases</td>
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<tr>
<td>25</td>
<td>d</td>
<td>120.6</td>
<td>Nuclear Fuel Under Capital Leases</td>
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<tr>
<td>26</td>
<td>c</td>
<td>120.5</td>
<td>(Less) Accum. Prov. for Amort. of Nuc. Fuel Assemblies</td>
</tr>
<tr>
<td>27</td>
<td>d</td>
<td>120.5</td>
<td>(Less) Accum. Prov. for Amort. of Nuc. Fuel Assemblies</td>
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<tr>
<td>28</td>
<td>c</td>
<td>121.2</td>
<td>Net Nuclear Fuel (Enter Total of lines 7-11 less 12)</td>
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<tr>
<td>29</td>
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<td>Net Nuclear Fuel (Total of lines 7-11 less 12)</td>
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<tr>
<td>30</td>
<td>c</td>
<td>121.5</td>
<td>Net Utility Plant (Enter Total of lines 6 and 13)</td>
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<tr>
<td>31</td>
<td>d</td>
<td>121.5</td>
<td>Net Utility Plant (Total of lines 6 and 13)</td>
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<tr>
<td>32</td>
<td>c</td>
<td>121.6</td>
<td>Utility Plant Adjustments (116)</td>
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<td>Utility Plant Adjustments (116)</td>
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<tr>
<td>34</td>
<td>c</td>
<td>121.7</td>
<td>Gas Stored Underground - Noncurrent (117)</td>
</tr>
<tr>
<td>35</td>
<td>d</td>
<td>121.7</td>
<td>Gas Stored Underground - Noncurrent (117)</td>
</tr>
</tbody>
</table>

**Elements**
- UtilityPlant
- ConstructionWorkInProgress
- AccumulatedProvisionForDepreciationAmortizationAndDepletionOfPlantUtility

**Period Dimensions**
- Current
- Prior
• Able to represent all types of data (monetary, integer, percent, string, text block, enumerated lists, area, volume, energy)

• Contains structure to explain relationships between concepts
  • Presentation (hierarchy)
  • Calculations (A + B = C)
  • Definition
  • References (authoritative)
  • Labels (standard, abbreviated, preferred, start and end of period)
Taxonomy Review

001 - Schedule - Corporate Officer Certification
001 - Schedule - Identification
002 - Schedule - List of Schedules
101 - Schedule - General Information
102 - Schedule - Control Over Respondent
103 - Schedule - Corporations Controlled by Respondent
104 - Schedule - Officers
105 - Schedule - Directors
105 - Schedule - Information on Formula Rates
105a - Schedule - Information on Formula Rates
106a - Schedule - Information on Formula Rates
105b - Schedule - Information on Formula Rates
105 - Schedule - Important Changes During The Quarter Year
110 - Schedule - Comparative Balance Sheet - Assets And Other Debts
110 - Schedule - Comparative Balance Sheet - Liabilities and Other Credits
114 - Schedule - Statement of Income
115 - Schedule - Retained Earnings
115 - Schedule - Retained Earnings - Appropriated
115 - Schedule - Retained Earnings - Appropriations
115 - Schedule - Retained Earnings - Common Stock
115 - Schedule - Retained Earnings - Credit
115 - Schedule - Retained Earnings - Debit
115 - Schedule - Retained Earnings - Preferred Stock
115 - Schedule - Retained Earnings - Unappropriated Undistributed Subsidiary Earnings
120 - Schedule - Statement of Cash Flows

Related XBRL for Electric Utilities, November 3, 2020
CPE Questions
Instructions

• Tagging
  • Typed dimensions
  • Sorting items
  • Duplicate values
  • Accuracy
  • Periods (quarterly roll forwards)
  • Text block items
    • From other filings (copying from other non-FERC filings)
  • Subtotals

• Validation
• Rendering
• Footnotes
Typed Dimensions

- Allows the reporting of sequences
  - Directors, Transmission lines
  - Blank rows
    - Cash-Flow
    - Retained earnings
  - Members defined by filer
  - Should be consistent over time
  - Fact will have the sequence dimension.
  - Sequences have totals – leave off the sequence axis.
Sorting

• Use Order Number
• Does not appear on the schedule
• Must be a decimal
• Allows insertion to reorder items i.e. 1.02
• Must always use a dimension
• Order for migrated data was taken from original filing
• Some schedules have multiple dimensions
• 262 - TAXES ACCRUED, PREPAID AND CHARGES DURING YEAR
Duplicate Values

• Must not enter duplicate values
• Validation rules check for this
• Values on sub-schedule are tagged the same as main schedule. i.e. CommonStockIssued. (114 & 250)
• Use a note to indicate a difference
Accuracy and Units

• All monetary amounts are in USD
• Other items will include a label indicating the unit type
• Validation rules check that the unit used is correct
• Numbers must be accurate to the dollar so decimals should be set to 0.
Periods

• All facts have a period.
• Periods are determined based on the report year and the report period.
• If these are changed then the location of facts in the report will change.
• Across the schedules there are various periods that can be used.
• Be careful to ensure the correct period is used.
• Validation rules check that appropriate periods are used.
• For quarterly reports the CF closing balance of cash will not equal the opening.
• Schedule 302 reports cumulative amounts.
• Some rollforwards are for the quarter vs the year to date. This was not clear on the original schedules.
Text Block Items

• Taxonomy contains number of text block items.
• If rendered should use valid xhtml.
• Can copy html notes from SEC filings but should remove inline. SEC rendered text block items remove inline tags.
• Styling is included in rendered filings. Check styling does not conflict.
Subtotals

• Some schedules have subtotals.
• FERC data migration tagged these as distinct lines.
• When preparing filing don’t use the migrated data as an example. Some schedules have this as historical data.
• See Schedule 250.
• Orders on subtotals 262.
Validations

• Validation rules apply to an entire form. i.e. the same rules are used for the annual, quarterly and form 1F.
• Validations generally check the totals add and cross add.
• Cross check across schedule when the values differ.
• Check periods.
• Check units.
• Check required elements.
• Validations described in instructions.
• Published by the FERC using the open source XBRL software (Arelle), so can validate locally.
Rendering

• Can render the entire form.
• Can render a specific schedule.
• Creates a valid inline XBRL document.
• See XBRL US site.
Footnotes

• Link fact to the footnote beneath schedule.
• Software should support creation of footnotes.
• Most footnotes will be fact-> footnote.
• Also need support for fact->fact as well
  • If want to be able to request confidential data.
  • Indicate confidential data with a footnote.
Working with XBRL Vendors

- XBRL US members that can help:
  - Advanced Computer Innovations, Inc.
  - DataTracks
  - Donnelley Financial Solutions (DFIN)
  - Iris Business Services
  - Novaworks, LLC
  - P3 Data Systems
  - RDG Filings
  - Workiva, Inc.

- Questions you should ask:
  - Does your application support FERC validation? Typed dimensions?
  - What experience do you have preparing XBRL for other entities?
  - How long will it take to prepare the XBRL filing?
  - How can I review the XBRL tags used on each fact? What if multiple parties internally need to review the form?
  - If I need to change a value in a report, how long will the vendor need to make the change?
  - How will the process differ the second time around?
  - Can the vendor give you a printout of the FERC rendering of your filing?
CPE Questions
XBRL for Electric Utilities, November 3, 2020
More XBRL US events for utilities

- Instructional webinars:
  - Gas pipeline companies, November 4, 2020
  - Oil pipeline companies, December 1, 2020
  - Centralized service companies, December 2, 2020
  - Electric transmitting utilities, December 10, 2020

- XBRL US Investor Forum, November 17-18, 2020
  - Keynotes SEC Commissioner Allison Herren Lee, PwC Vice Chair Wes Bricker
  - [http://xbrl.us/forum](http://xbrl.us/forum)