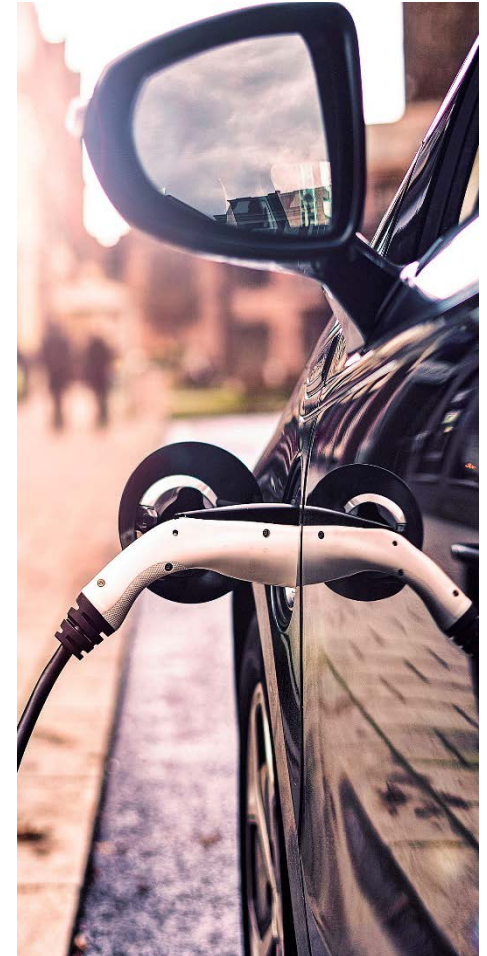
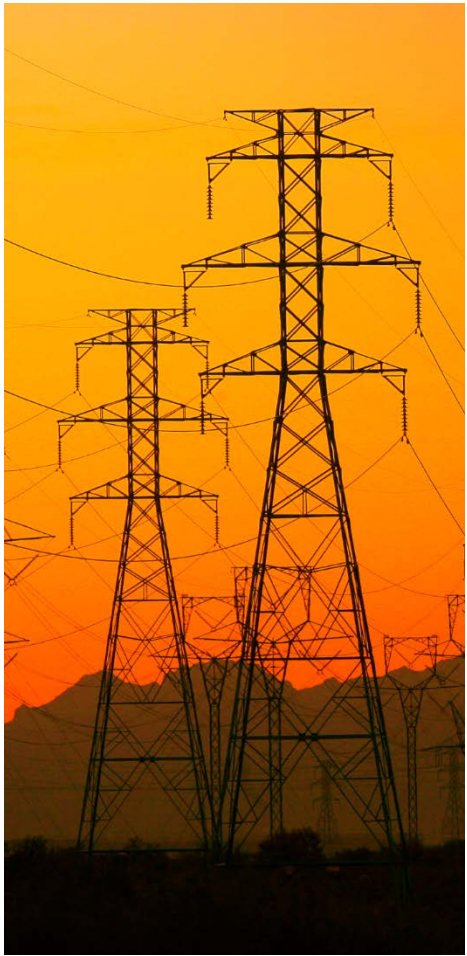




TEP Integrated Resource Plan - Revenue Requirement Overview



Advisory Council Meeting

Jay Rademacher, Director of Rates & Revenue Requirements

August 16, 2019



Revenue Requirement

- Total amount which must be collected in rates for a utility to recover its prudently incurred operating expenses and earn a fair return
- Key financial metric in evaluating energy resources
- One goal of IRP is to minimize bill impacts to our customers

$$\begin{array}{|c|} \hline \text{Operating} \\ \text{Expenses} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Return on} \\ \text{Rate Base} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Revenue} \\ \text{Requirement} \\ \hline \end{array}$$



Operating Expenses

- Operating expenses are comprised of all expenses incurred in providing service to customers
- Included in the revenue requirement at cost (no profit component)
- Cost categories
 - Fuel and purchased power
 - Operations and Maintenance (“O&M”)
 - Salaries and benefits
 - Materials and supplies
 - Insurance and other costs
 - Taxes



Operating Expenses (Cont.)

- Depreciation and Amortization
 - Non-cash expense related to using long-lived plant and equipment
 - Reflects loss in service life attributable to gradual decrease in plant value as assets age and wear out
 - Expense is recorded on a straight line basis over estimated service lives
 - Estimated service lives are periodically reviewed and updated in general rate case proceedings

Depreciation Example

Plant Cost:	\$ 1,000,000
Estimated Service Life:	50 years
Annual Depreciation Expense:	\$ 20,000



Return on Rate Base

o Rate Base Components

- Original cost of plant and equipment devoted to utility service
- Reduced by accumulated depreciation
- Reduced by accumulated deferred income taxes, which are typically the result of tax depreciation methods that are faster than regulatory depreciation methods
- Other items of rate base include working capital (e.g. materials and supplies) and regulatory assets/liabilities

o Rate of Return

- Includes debt and equity returns
- Example
 - o 50/50 debt/equity weighting
 - o 5% debt return/10% equity return
 - o Rate of Return = 7.5% (50% x 5% + 50% x 10%)



Return on Rate Base (Cont.)

+	Original Cost of Plant and Equipment
-	Accumulated Depreciation
-	Accumulated Deferred Income Taxes ("ADIT")
+/-	Working Capital & Other items
=	Total Rate Base
x	Rate of Return
=	Return on Rate Base



Revenue Requirement Example

Operating Expenses		
Fuel	\$	25
O&M		20
Property Taxes		3
Depreciation		4
Income Taxes		2
Total	\$	54

+

Return on Rate Base		
Plant	\$	200
Accum. Depreciation		(80)
ADIT		(25)
Materials & Supplies		5
Total Rate Base	\$	100
Rate of Return		7.50%
Return on Rate Base	\$	7.50

=

Revenue Requirement	
\$	61.50

\$2.50 Debt Return
(Interest Expense)

\$5 Equity Return
(Net Profit)



Allocating the Revenue Requirement



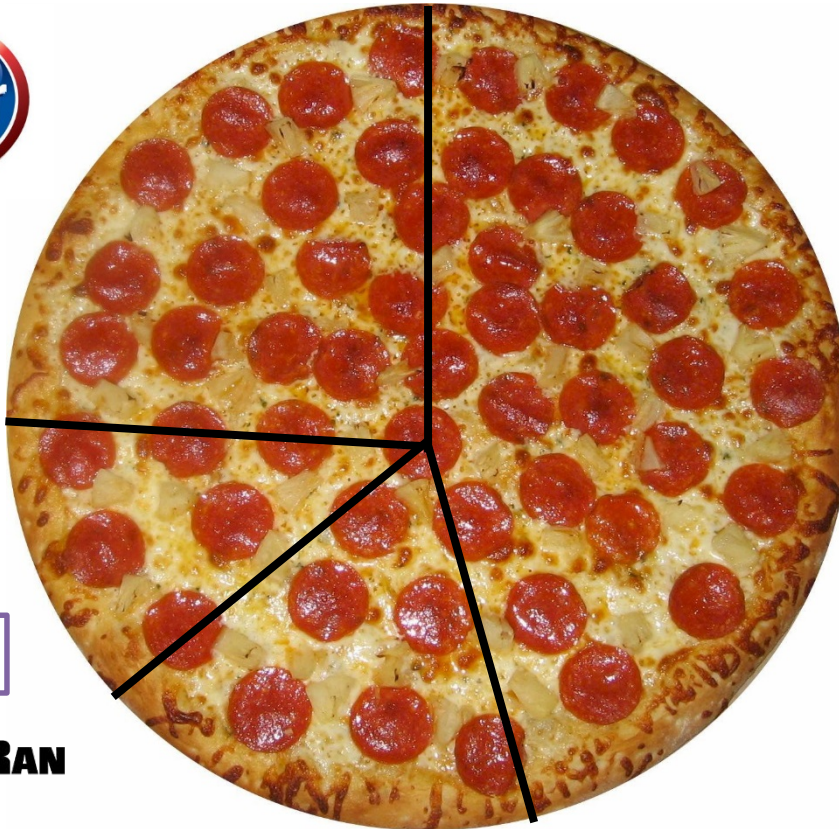
General Service



Large Power Service



Large General
Service



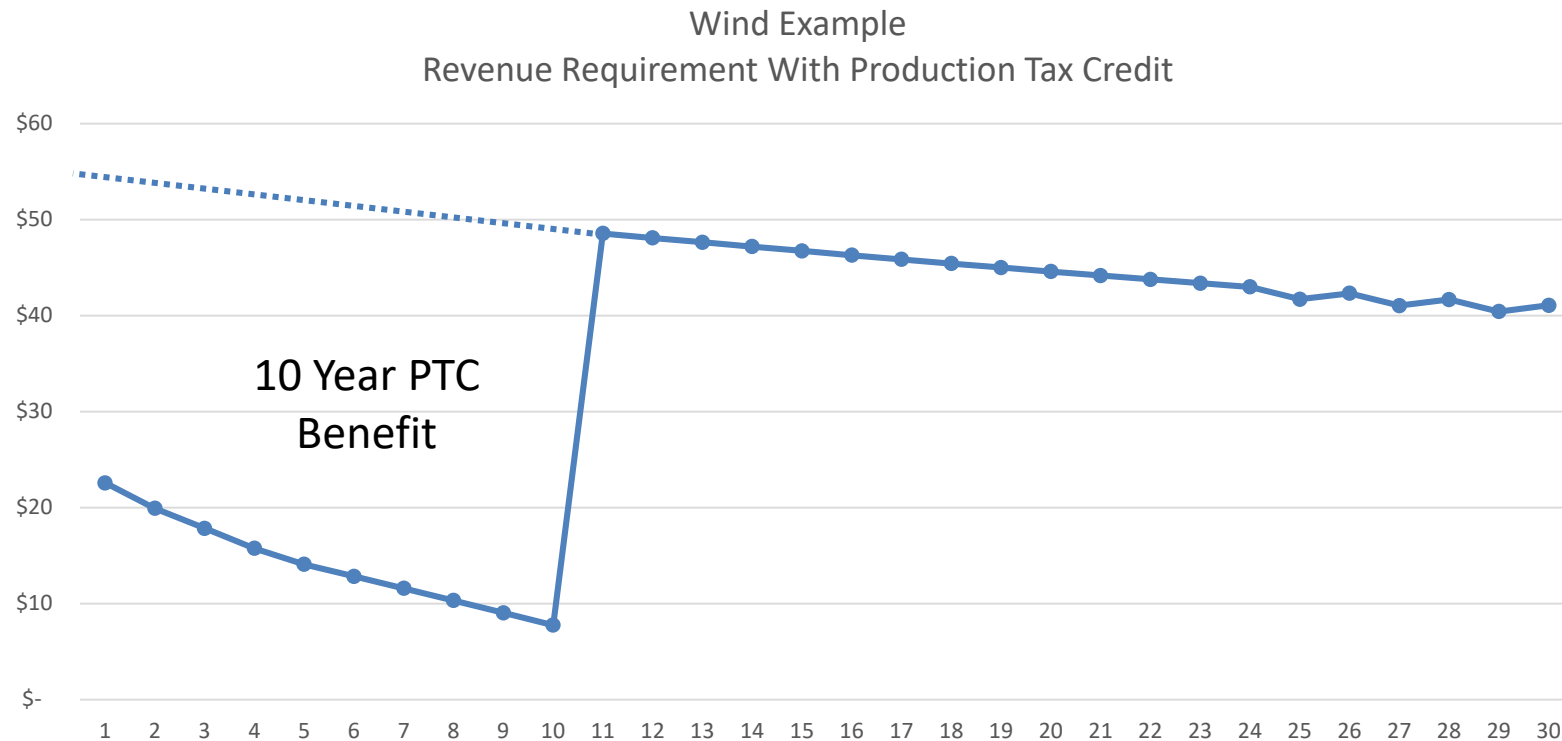
Residential

- Revenue Requirement is allocated by customer class
- Rate Options for each customer class designed to collect each “slice of the pie”
- Changes in customer usage:
 - Can shift revenue allocation and rates
 - However, fixed cost portion of revenue requirement may not change



Wind Production Tax Credit Opportunities

- Production Tax Credits (“PTC’s”) are currently available, but are being phased out
- Credits available for 10 years following in service date of facility
- Significantly reduces the revenue requirement over first ten years





Changes in Retirement Date Assumptions

Changes in retirement date assumptions can have significant impacts on depreciation component of the revenue requirement

