Normalization of Deferred Income Taxes
for
Rocky Mountain Power
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Summary

The normalization of deferred income taxes in the rate making process is a complicated and sometimes controversial issue. While normalization is prescribed by the Internal Revenue Code for the tax benefits of accelerated depreciation, the Public Service Commission of Utah has the authority to determine the best approach regarding other tax benefits such as differences in the capitalization of costs. This report provides a brief summary of the issues related to whether it is better to flow benefits through to ratepayers when it is permitted or to fully normalize income taxes in rate cases. There are several arguments supporting either a full normalization policy or a flow-through policy, but a comparison of the discounted cash flows under the alternative policies can be used as an objective measure to help the Commission decide this matter. The discounted cash flow models indicate that full normalization is favored at discount rates that are less than the utility's authorized pretax return. In this regard, the Commission should determine whether ratepayers in general can achieve an alternative investment earnings rate that is greater or less than the utility's authorized pretax return. The impact of a flow-through policy varies from year to year and the Commission should consider the immediate impact that a move to full normalization will have on ratepayers, especially in the current economic environment.

Deferred Income Taxes

Deferred income taxes are created when components of income or expense are recognized in different time periods for financial reporting purposes than for income tax purposes.[1] The Federal income tax laws necessarily require some items to be reflected differently for income tax reporting purposes. Some of these differences are the result of efforts to protect the federal government from abuse by tax payers. Other differences are the result of legislative efforts to stimulate economic activity. These efforts often take the form of accelerated depreciation or an immediate write-off of investments in fixed assets. When these assets are deducted more quickly on income tax returns than for financial reporting purposes the current burden of income tax payments are reduced. These accelerated write-offs will eventually be exhausted and the company's taxable income will increase to a level that is above book income relative to those specific items.

[1] Book income for most public utilities is based on Generally Accepted Accounting Principles ("GAAP"). One of the fundamental principles of GAAP is to match revenues and expenses with the period in which they are occur. Income tax expense is accrued to match revenues earned and other expenses incurred in the reporting period. The accrued income tax expense under GAAP will not equal the actual taxes paid for that period.

The taxes that were previously deferred will then be paid to the taxing authorities. These tax deferrals are reported in different ways. The Internal Revenue Service requires corporate tax payers to prepare a reconciliation of book income and taxable income on Schedule M of the entity's income tax return. GAAP requires companies to report the total of current and deferred income tax expense and their accumulated deferred income taxes.[2]

The income tax issues related to the establishment of utility rates can be complicated. Regulatory agencies sometimes require that advantageous tax provisions be flowed-through to ratepayers by including those adjustments in the calculation of the income tax component of the revenue requirement.[3] However, Congress has restricted this practice so that temporary differences related to accelerated depreciation cannot be used to directly benefit ratepayers. Instead, regulatory bodies must use the same depreciation rates for both the revenue requirement calculation and for the income tax calculation contained in the revenue requirement.[4] The regulator is then permitted to use the accumulated balance of deferred income taxes that results from this treatment as a reduction to the rate base. This requirement results in an interperiod tax allocation because income tax deductions are recognized when the asset is depreciated for ratemaking purposes instead of when the deduction is actually taken on the tax return. The use of the interperiod tax allocation to calculate components of the revenue requirement and to calculate income tax expense and the deduction of the accumulated deferred income tax balance from the rate base is known as income tax normalization.[5] Normalization of tax benefits result in both current income tax expense and deferred income tax expense being included in the rate setting process. With normalization, the balance of accumulated deferred income taxes may be deducted from the rate base as a source of cost free capital. The ratepayer will realize a reduction in rates under full normalization equal to the Commission authorized pretax return on the balance of accumulated deferred income taxes.[6] At some point in the future the accelerated tax deductions will be exhausted and the taxes that were previously deferred will be paid and the accumulated deferred income tax balance will be reduced.[7]

The tax code does not require all tax benefits to be normalized. In those instances commissions may decide to what degree those tax benefits may be flowed through to ratepayers. However, tax benefits flowed through to ratepayers cannot also be deducted from the rate base.[8]

Rate Regulation and Deferred Income Taxes

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[2] FASB Statement No 109, *Accounting for Income Taxes* (Feb 1992).
[3] The flow-through of tax benefits in the rate making process amounts to a cash basis of accounting for that component of the revenue requirement.
[4] IRC §168(f)(9).
[5] *Accounting for Public Utilities*, Matthew Bender, Rel.23-10/06, § 17.01[1].
[6] Leonard Saul Goodman, *the Process of Ratemaking*, Public Utility Reports, Inc, Vienna, VA, 1998, page 710.
[7] *Accounting for Public Utilities*, Matthew Bender, REl.23-10/06, § 17.01[1].
[8] Leonard Saul Goodman, *the Process of Ratemaking*, Public Utility Reports, Inc, Vienna, VA, 1998, page 718.

Each regulatory jurisdiction may establish its own policy regarding the flow-through of tax attributes not required to be normalized. In Utah, Rocky Mountain Power has been 40% normalized since the mid-nineteen eighties for differences in amounts capitalized for tax purposes compared to general accounting purposes (basis differences). Because of this only 40% of the accumulated deferred income taxes related to those basis differences may be deducted from rate base in a rate proceeding. This also means that 60% of the basis difference is deducted for the calculation of the income tax expense to be included in the revenue requirement in the year the deduction is incurred and 60% of the accumulated deferred income taxes related to basis differences represent a liability the ratepayers must pay in the future when those taxes are paid by Rocky Mountain Power.

There are several arguments made to support either tax benefit flow-through or tax normalization. These include:

1) intergenerational equity,
2) the ongoing creation of new tax benefits to replace exhausted benefits,
3) the cash flow benefits are needed by the utility,
4) the cash flow benefits are needed by the ratepayer, and
5) the materiality of these issues for the company and for the ratepayer.

The intergenerational equity argument states that a flow-through policy may provide an immediate benefit for today's ratepayers, but in the future other ratepayers will have to pay the taxes that were previously deferred plus their own current income tax expense.[9] The later ratepayers will be unfairly burdened by the benefits the previous ratepayers received.

A counter argument to the intergenerational equity issue is that a utility will create new tax benefits to replace the exhausted benefits so that taxes will always be deferred.[10] Also, inflationary pressure tends to reduce the impact of those future income tax payments because those liabilities will be paid with dollars whose value has been diluted by inflation.

The added cash flow from reduced tax payments can reduce a utility's financing needs during construction periods.[11] The added tax deductions for differences in capitalized costs are related to plant investment and these deductions are largest when the company is undergoing a major period of plant expansion. The added rate revenues that result from full normalization of income taxes should help support the company's credit ratings. This is important during a major plant construction period when financing must be obtained that will impact the company's return requirement for many years.

[9] *Accounting for Public Utilities*, Matthew Bender, REl.23-10/06, § 17.01[6][b].
[10] Leonard Saul Goodman, *the Process of Ratemaking*, Public Utility Reports, Inc, Vienna, VA, 1998, page 718.
[11] *Accounting for Public Utilities*, Matthew Bender, REl.23-10/06, § 17.01[6][b].

On the other hand, consumers face the same cash flow issues as the utility and some consumer groups argue that those tax benefits should be flowed through to ratepayers whenever it is permissible. These tax benefits are greatest during a period of plant expansion and can help to reduce rate shock that occurs during those times.

Another consideration is that if the utility does not file annual rate cases the increased deduction for basis differences can easily be missed under a flow-through policy. Under a full normalization policy the increased deductions are recorded as deferred income taxes and are accumulated in a reserve account. These accumulated deferred income taxes are used to reduce rate base so the benefit is preserved for ratepayers and spread over the useful life of the related property.

Materiality should also be taken into account in the review of tax normalization policies. The plant basis differences which are the issue of this discussion can amount to several million dollars. This must be considered in the context of a requested revenue requirement of over $1.5 billion. Those that would object to the principle of full normalization might be less concerned if the impact on their constituents is not considered significant and the overall revenue requirement eventually will be lower as a result of a larger accumulated deferred income tax balance being included as a reduction to the rate base.

Regulators should use objective measures to evaluate these issues and establish a policy regarding the full normalization of income taxes. The best tool to measure the benefits of full normalization compared to a flow-through policy is a discounted cash flow model.

Discounted Cash Flows Provide an Objective Measure

The evaluation of a tax normalization policy based on a discounted cash flow model has the advantage of objectivity. These models compare the value of money received or spent today with the value of money received or spent at periods in the future. A discounted cash flow model will compare the actual current dollar value the ratepayer will receive from a flow-through policy with one that would fully normalize income taxes.

Under a full normalization policy the company will collect more for income tax expense in rates than they pay to the taxing authorities. The taxes that are collected but not paid are deferred from the initial period to later periods and are recorded as accumulated deferred income taxes. The accumulated deferred income taxes are deducted from rate base in a rate proceeding. Under full normalization the ratepayers will have a greater expenditure for income tax expense from a rate case filed in the periods when the assets is under construction but will have a reduced tax expense and a reduced rate base in all following periods. The total income taxes paid by ratepayers will not change under full normalization. The return requirement of the utility will be reduced overall by full normalization because of the deduction of a greater amount of accumulated deferred income taxes from rate base. Ratepayers will pay less over the life of the asset as a result.

However, money that is available now is more valuable than money that is available in the future. While the actual dollar savings under full normalization is determined by the utility's authorized pretax return, the ratepayer's alternative investment return should be used as the discount factor. This is because the determination as to whether it is more advantageous to normalize or flow tax benefits through to ratepayers rests on whether an alternative investment would be more or less profitable for the ratepayer. If the alternative investment earnings rate is greater than the utility's authorized pretax return then the ratepayer is better off under a flow-through policy. If the alternative investment return is less than the utility's authorized pretax return then the ratepayer is better off under a full normalization policy. These comparisons will be illustrated later with a simplified example.

The alternative scenario where the increased income tax deductions during a construction period are flowed through to ratepayers is less complicated to describe. The ratepayers receive a reduction in their rates in a rate case filed during the construction period. They later have to pay comparatively higher taxes through subsequent rate cases. This takes the form of an interest free loan from the taxing authorities to ratepayers through the utility. But in choosing flow-through the regulator would deprive the ratepayer of the savings that would have been realized with full normalization at the utility's pretax rate of return. The following table illustrates an example of a simplified pretax rate of return calculation assuming a 50% long term debt and 50% common equity capital structure, a 6% cost of debt, a 10% return on equity, and a 40% combined effective income tax rate:

Table 1
Pretax Rate of Return Example

	% of Capital Structure	Cost	ROR Component	Tax Gross-Up Factor[12]	Pretax Rate of Return
Debt	50.00%	6.00%	3.00%	1.0000	3.00%
Equity	50.00%	10.00%	5.00%	1.6667	8.33%
Totals	100.00%		8.00%		11.33%

This table shows that the cost of forgoing the full normalization is fairly high at 11.33%. However, some ratepayers, such as industrial customers, may have a higher earnings expectation than a lower-risk public utility.

Discounted Cash Flow Examples

The effects for full normalization versus the flow through of income tax benefits can be illustrated with simplified examples. This is illustrated on Tables 2, 3, and 4 following. All three models are focused on the differences between book and tax capitalization. The remaining plant balances are excluded because the depreciation rate differences would need to be brought into the picture and this would tend to obscure the impact of the

[12] A tax gross-up factor is used to calculate income before taxes are deducted. It is the ratio of pre-tax income to post tax income. In this example it is 1/(1-.40) = 1.6667 with the hypothetical 40% income tax rate.

capitalization differences that needs to be illustrated in these examples. Other secondary impacts are also ignored for the same reason.

Table 2 shows the calculation of the impact of full normalization on the annual revenue requirement of a utility. In this example the utility's rate base is reduced by the deferred income tax benefits that result from the deduction of some of the costs that were capitalized for financial reporting purposes. Here the utility will pay less in income taxes in the first year than it recovers from ratepayers and it will then pay more than it collects in the last five years. In the end it will have collected as much as it has paid in to taxing authorities. The difference, deferred income taxes, are recorded by the utility and the net balance is used to reduce rate base in a rate proceeding. This table shows that the total impact of these rate base components includes the authorized return on capital plus income taxes for the equity return. Depreciation expense for the plant in service balance is added to the return requirement and the related income taxes to provide the impact on the revenue requirement. Finally, the annual revenue requirement totals must be discounted to find the present value of the payments ratepayers will be responsible for in the future.

This example uses the hypothetical authorized return with income taxes illustrated in Table 1 as the discount rate for the present value calculation.

Table 2
Full Normalization of Basis Differences

	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Totals**
Capitalized costs deducted for tax	1,000						
Plant in Service Balance		1,000	1,000	1,000	1,000	1,000	
Book depreciation not deducted on tax return		200	200	200	200	200	
Accumulated Depreciation		(200)	(400)	(600)	(800)	(1,000)	
Net Plant in Service		800	600	400	200	-	
Current income tax expense	(400)	-	-	-	-	-	
Deferred income tax expense	400	(80)	(80)	(80)	(80)	(80)	
Total income tax expense	-	(80)	(80)	(80)	(80)	(80)	
Accum. deferred income taxes	(400)	(320)	(240)	(160)	(80)	-	
Full normalization rate base	(400)	480	360	240	120	-	
Authorized rate of return	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	
Return requirement	(32)	38	29	19	10	-	
Income taxes on return	(13)	16	12	8	4	-	
Other expenses	-	200	200	200	200	200	
Impact on revenue requirement	(45)	254	241	227	214	200	**1,091**
Discount rate	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%	
Present value	(45)	226	189	158	132	110	**770**

The impact of a tax benefit flow-through to ratepayers is illustrated in Table 3. While Rocky Mountain Power currently flows through only 60% of the basis differences, this

example shows the impact of 100% flow-through to simplify the example. There are two major differences in the flow-through example in Table 3 and the full-normalization example in Table 2. The first difference is that the revenue requirement includes the difference between current income tax expense and total income tax expense. This is necessary to reflect the fact that the current income taxes are included in the revenue requirement instead of the combined total of current and deferred income taxes. These are the benefits being flowed through to ratepayers. The second difference is the balance of accumulated deferred income taxes related to benefits flowed through to ratepayers is not deducted from rate base because the utility did not retain this source of cost free capital. The initial revenue requirement under a flow-through policy is lower in early periods and higher than otherwise in later years. The flow-through example is also discounted at the utilities rate of return with income taxes to find the present value of these costs.

Table 3
Flow-Through of Tax Benefits Related to Basis Differences

	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Totals**
Capitalized costs deducted for tax	1,000						
Plant in Service Balance		1,000	1,000	1,000	1,000	1,000	
Book depreciation not deducted on tax return		200	200	200	200	200	
Accumulated Depreciation		(200)	(400)	(600)	(800)	(1,000)	
Net Plant in Service		800	600	400	200	-	
Current income tax expense	(400)	-	-	-	-	-	
Deferred income tax expense	400	(80)	(80)	(80)	(80)	(80)	
Total income tax expense	-	(80)	(80)	(80)	(80)	(80)	
Accum. deferred income taxes	(400)	(320)	(240)	(160)	(80)	-	
Rate base with tax flow-through	-	800	600	400	200	-	
Authorized rate of return	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	
Return requirement	-	64	48	32	16	-	
Income taxes on return	-	27	20	13	7	-	
Flow-through of tax deferrals	(400)	80	80	80	80	80	
Other expenses	-	200	200	200	200	200	
Impact on revenue requirement	(400)	371	348	325	303	280	**1,227**
Discount rate	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%	
Present value	(400)	329	274	227	187	153	**770**

Table 4 illustrates the impact of 40% normalization of basis differences which is the current Commission policy in Utah for Rocky Mountain Power. This example is similar to Table 3 but ratepayers only receive 60% of the flow-through benefit in the first year and the subsequent deferred taxes included in rates is limited to 60% of the full flow-through amount. As expected this example shows an overall impact on the revenue requirement between the full normalization example and the full flow-through example.

Table 4
40% Normalization of Tax Benefits Related to Basis Differences

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Capitalized costs deducted for tax	1,000						
Plant in Service Balance		1,000	1,000	1,000	1,000	1,000	
Book depreciation not deducted on tax return		200	200	200	200	200	
Accumulated Depreciation		(200)	(400)	(600)	(800)	(1,000)	
Net Plant in Service		800	600	400	200	-	
Current income tax expense	(400)	-	-	-	-	-	
40% of Deferred income tax expense	160	(32)	(32)	(32)	(32)	(32)	
Total income tax expense	(240)	(32)	(32)	(32)	(32)	(32)	
Regulatory accumulate deferred income tax	(160)	(128)	(96)	(64)	(32)	-	
40% normalization rate base	(160)	672	504	336	168	-	
Authorized rate of return	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	
Return requirement	(13)	54	40	27	13	-	
Income taxes on return	(5)	22	17	11	6	-	
Flow-through of tax deferrals	(240)	48	48	48	48	48	
Other expenses	-	200	200	200	200	200	
Impact on revenue requirement	(258)	324	305	286	267	248	**1,173**
Discount rate	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%	
Present value	(258)	287	240	199	165	136	**770**

These three examples illustrate the point that when the annual cash flows are discounted at the same rate as the authorized return with income taxes the present value is the same under any of the three methods. It appears that it might not make any difference if basis differences are normalized or flowed-through to ratepayers if the present value of the two alternatives are the same, but that is not the case. This use of the utility's pretax return as a discount rate only applies to the utility itself. The ratepayer's alternative rate of return should be used to decide whether the ratepayer is better off under full normalization or under a flow-through policy. This alternative rate is different for most ratepayers. If a ratepayer's alternative return is thought to equal that of long-term treasury notes or another low-yield investment then that customer would be better off investing the funds with the utility through the full normalization provision. On the other hand, an industrial or commercial customer may be able to earn at a rate higher than the utility's authorized pretax return. Those customers would clearly prefer to reduce their current costs and invest the extra cash flow in their own operations. Also, any customer that plans to leave the utility system in the near future would prefer to reduce their current electric bill and leave the remaining customers to pick up their tab! The various customer classes make different contributions to the return requirement of the utility and the Commission should consider this as a part of the tax normalization policy review and the selection of the ratepayer's alternative rate of return. Table 5 illustrates the impact of a discount rate of 5% which clearly shows that a ratepayer with a lower alternative return would be better off under a full normalization policy.

Table 5
Comparison of Present Values Under a Lower Discount Rate

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Normalization rev. requirement	(45)	254	241	227	214	200	
Discount rate	5%	5%	5%	5%	5%	5%	
Present value	(45)	242	217	195	174	155	**938**
Flow-through rev. requirement	(400)	371	348	325	303	280	
Discount rate	5%	5%	5%	5%	5%	5%	
	(400)	352	314	279	247	217	**1,009**

The Value of Cash Flow

Cash flow is important to any business including public utilities. A company must go to the capital markets for financing for all cash needs that their business is not able to generate. If a company has to borrow too much money they will be perceived as a high risk investment and they may see their rating downgraded. For this reason utilities must make sure that their cash flow is adequate and they will not be indifferent to proposals that will limit their cash flow but otherwise provide them with an adequate return. On the other hand, ratepayers, particularly business customers, face the same liquidity problems that utilities do. The regulator must carefully balance these interests in their review of a tax normalization policy.

The Impact of Plant Additions

The plant investment of individual electric utilities normally does not grow uniformly over time but instead large and expensive power plants and transmission projects are added several years apart. PacifiCorp, however, has tentative plans to add generation resources annually for the next several years[13]. A flow-through policy would provide customers with some tax cost reductions during this extended construction period. The amount of the savings would vary from one rate case to the next depending on the amount of construction during each test year. PacifiCorp provided the deferred taxes flowed through to ratepayers for the last several years in a data request response.[14] Table 5 provides part of PacifiCorp's response:

Table 6
Flow Through for Utah

12/2007	3/2006	3/2005	3/2004	3/2003	3/2002	3/2001
(1,183,829)	(8,388,568)	3,191,376	(8,226,127)	(3,276,559)	7,043,297	3,466,569

As this table illustrates, the results of a partial flow-through policy are somewhat variable.

[13] Docket 09-2035-01, Draft IRP filed 4/8/09, page 240.
[14] See DPU data request 2.1

Impact of a Move to Full Normalization

PacifiCorp stated in its most recent rate case that a move to full normalization would increase the revenue requirement by $18 million dollars.[15] This amount of increase may not be acceptable in the current economic downturn. The impact would be reduced if a movement to full normalization is delayed or phased in over several rate cases. Also, the impact of the next selected test year may not be as large as was the case in the most recent case. If the Commission chooses to move to a full normalization policy the impact in the transition case should be identified and included in the decision process.

Issue Summary

The issues related to the normalization or flow-through of tax benefits are complicated and this report has attempted to simplify these issues to aid the Commission's evaluation of their tax normalization policy. It is noteworthy that the largest temporary difference which is the use of accelerated depreciation rates for tax purposes must be normalized under the internal revenue code. The remaining issue related to the plant depreciable basis difference is not as significant in the rate making process. The Utah Public Service Commission previously moved Rocky Mountain Power to a 40% normalization position on the deferred taxes not related to accelerated depreciation. Some of the issues related to the full normalization of deferred income taxes are 1) intergenerational equity, 2) the ongoing generation of new tax benefits to replace exhausted benefits, 3) cash flow benefits that will help a utility during a major construction period, 4) the initially reduced rates from tax benefits that can benefit the ratepayer, 5) materiality, and 6) the economic environment.

An objective method for the evaluation of the full normalization issue is to compare the discounted cash flows from full normalization with the flow-through tax benefits. Under this methodology, if the ratepayer is considered to have a higher alternative return available than the utility's pretax authorized return then any significant tax benefit should be flowed through to them even if it will mean higher rates in the future.

[15] Docket 08-035-38, Response to data request DPU 58.11.