

# **BACKGROUND REPORT ON THE VALUATION OF ELECTRICAL GENERATION PROPERTY**

Prepared for the Revenue and Transportation Committee

by

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## **INTRODUCTION**

At its October 2, 2003, meeting, the Revenue and Transportation Committee tacitly adopted the Senate Joint Resolution No. 29 study plan to study the valuation and taxation of electrical generation property. The purpose of this report is to: evaluate recent trends in the market valuation of coal-fired electrical generation facilities in Rosebud and Yellowstone Counties and of hydroelectric facilities owned by regulated utilities and PPL Montana; discuss some aspects of PPL Montana's property tax protest; and review some issues related to the valuation of electrical generation property.

## **TRENDS IN THE MARKET VALUATION OF ELECTRICAL GENERATION PROPERTY IN MONTANA**

In December 1999, the Montana Power Company (MPC) sold its interests in 11 hydroelectric dams, the Hebgen Lake Dam in Gallatin County, and coal-fired generation plants to PPL Montana. The coal-fired plants included MPC's interest in Colstrip Units I, II, and III in Rosebud County and the J.E. Corette Plant in Yellowstone County. The hydroelectric facilities included the dams located in Cascade County (5), Lake County (1), Lewis and Clark County (2), Madison County (1), Sanders County (1), and Stillwater County (1). PPL Montana acquired about 1,315 megawatts of electrical generating capacity from the purchase. The sale did not include MPC's interest in Colstrip Unit IV or the Milltown Dam in Missoula County.<sup>1</sup>

PPL Montana was first assessed property taxes for the electrical generation facilities in tax year 2000. In that year, the purchase price served as the basis for determining market value of the facilities. The Department of Revenue used information from an appraisal of the facilities conducted by Deloitte and Touche on behalf of PPL Montana to apportion the values to counties. According to the Department of

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<sup>1</sup>The sale did not include Colstrip Unit IV because MPC was attempting to renegotiate its lease agreement for power sold in California or the Milltown Dam because of environmental problems. NorthWestern Energy acquired MPC's ownership interest in Colstrip IV and the Milltown Dam when it purchased MPC's transmission and distribution system in February 2002.

Revenue's tax year 2000 appraisal report for PPL Montana, the purchase price for the generation property was \$740 million. That amount was reduced by the value of nonoperating property (\$6.2 million) and increased by replacement construction work in progress (\$4.2 million). For tax year 2001 and succeeding tax years, the three approaches (cost, income, and market) to valuation were used.

Table 1 shows the trends in market value for PPL Montana's coal-fired generation property in Rosebud County (Colstrip units) and Yellowstone County (J.E. Corette). For comparison purposes, the table also shows the 1999 MPC market value of the generation facilities and the market value trends for the other ownership interests of the Colstrip units. Table 2 shows similar information for hydroelectric facilities.

In Rosebud County, the apportionment of market value of PPL Montana's ownership interest in Colstrip Unit III was \$130.9 million in tax year 2000, compared with \$181.3 million in tax year 1999 for MPC. Conversely, the allocation of market value of PPL Montana's ownership interest in Colstrip Unit II was \$178.9 million in tax year 2000, compared with \$112.5 million in tax year 1999 for MPC. The apportioned value of MPC's ownership interest in Colstrip Unit II in 1999 was about 4.5% less than Puget Sound's ownership interest in the unit. However, the apportioned value of PPL Montana's interest in the units has been ranged from 50% to 60% higher than Puget Sound's ownership interest. This disparity in valuation is one of the elements of PPL Montana's property tax protest (see below). In tax year 2001, the market valuation of each of PPL Montana's coal-fired generation units increased from the previous year, attributable, in part, to higher wholesale energy prices in 2000. The market value trends of the Colstrip units by ownership exhibit considerable variation over the 4-year period. In percentage terms, the Corette plant in Yellowstone County increased by double digit amounts through tax year 2003.

Except for Hauser, Madison, and Mystic Lake dams, the apportioned market value of most of the dams purchased by PPL Montana increased between 1999 and 2000. As was the case for coal-fired generation, the market value allocation of all of PPL Montana's dams increased in tax year 2001. The market value of the Avista Dam in Sanders County shows a downward trend.

Since tax year 2000, PPL Montana has disputed the market valuation of its generation facilities and has paid property taxes under protest based on the amount of the disputed portion of the valuation.

The payment of property taxes under protest is not unusual. For example, beginning in 1984, several

investor-owned utilities protested the payment of the beneficial use tax for the use of 500

**Table 1: Market Value of Coal-Fired Electrical Generation Property -- 1999-2003**

|   | Initial Year<br>of Operation | Prorated Winter<br>and<br>Summer<br>Capacity<br>in Megawatts | 2003              | 2002              | 2001              | 2000               | 1999               |
|---|------------------------------|--|-------------------|-------------------|-------------------|--------------------|--------------------|
| <b>Colstrip Units (percent of ownership)</b>  |                              |  |                   |                   |                   |                    |                    |
| Avista, Units 3&4 (15%)                       | 1983, 1985                   | 222.0  | \$ 102,271,895    | \$ 106,301,566    | \$ 106,435,732    | \$ 126,647,906     | \$ 142,110,887.00  |
| Pollution control--all units                  |                              |  | 27,039,226        | 27,039,226        | 28,341,043        | 31,994,018         | 36,387,948         |
| PacifiCorp, Units 3&4 (10%)                   | 1983, 1985                   | 148.0  | 75,990,583        | 76,617,263        | 80,767,087        | <b>88,325,991</b>  | <b>85,644,221</b>  |
| Pollution control--all units                  |                              |  | 18,990,448        | 18,754,639        | 20,119,929        | 21,520,701         | 22,624,811         |
| Portland General, Units 3&4 (20%)             | 1983, 1985                   | 296.0  | 128,537,383       | 143,516,083       | 160,450,112       | 170,428,889        | 191,101,176        |
| Pollution control--all units                  |                              |  | 33,588,206        | 41,560,049        | 44,462,328        | 51,368,696         | 56,432,838         |
| Puget Sound, Units 3&4 (25%)                  | 1983, 1985                   | 370.0  | 210,329,513       | 233,673,763       | 253,342,496       | 257,880,448        | 255,145,598        |
| Pollution control--all units                  |                              |  | 43,242,597        | 51,706,088        | 59,921,477        | 66,702,416         | 73,259,539         |
| Montana Power/NorthWestern, Unit 4 (30%)*     | 1985                         | 222.0  | 119,101,963       | 117,305,605       | 126,379,916       | <b>147,375,282</b> | <b>122,634,767</b> |
| Pollution control                             |                              |  | 29,858,840        | 28,329,390        | 29,097,448        | 36,086,848         | 38,190,065         |
| PPL Montana Unit 3 (30%) (MPC in 1999)        | 1983                         | 222.0  | 123,545,567       | 142,345,185       | 157,370,743       | <b>130,890,212</b> | <b>181,312,522</b> |
| PPL Montana Units 1&2 (50%) (MPC in 1999)     | 1975, 1976                   | 307.0  | 160,427,858       | 177,836,855       | 187,241,062       | <b>178,931,290</b> | <b>112,478,066</b> |
| Pollution control--all units                  |                              |  | <b>92,346,554</b> | <b>92,346,554</b> | <b>92,346,554</b> | 54,162,141         | 43,496,164         |
| Puget Sound, Units 1&2 (50%)                  | 1975, 1976                   | 307.0  | 102,842,722       | 110,906,864       | 123,165,685       | 119,237,410        | 117,716,658        |
| <b>PPL Montana--Corette (Yellowstone Co.)</b> | 1983                         | 160.0  | 47,315,039        | 55,550,663        | 47,386,795        | 35,871,501         | 30,549,462         |
| Pollution control                             |                              |  | <b>1,054,486</b>  | <b>1,054,486</b>  | <b>1,054,486</b>  | <b>1,054,486</b>   | 288,384            |
| Total Market Value--All Generation            |                              |  | 1,070,362,523     | 1,164,053,847     | 1,242,539,628     | 1,255,588,929      | 1,238,693,357      |
| Total Market Value--All Pollution Control     |                              |  | 246,120,357       | 260,790,432       | 275,343,265       | 262,889,306        | 270,679,749        |
| Total Market Value                            |                              |  | 1,316,482,880     | 1,424,844,279     | 1,517,882,893     | 1,518,478,235      | 1,509,373,106      |
| Total Market Value--Generation, PPL           |                              |  | 331,288,464       | 375,732,703       | 391,998,600       | 345,693,003        | 324,340,050        |
| Total Market Value--Pollution control, PPL    |                              |  | <b>93,401,040</b> | <b>93,401,040</b> | <b>93,401,040</b> | <b>55,216,627</b>  | <b>43,784,548</b>  |
| Total Market Value--PPL Montana               |                              |  | 424,689,504       | 469,133,743       | 485,399,640       | 400,909,630        | 368,124,598        |

Note: Market value does not include Colstrip "common" property

\*Sale/lease-back agreement with Puget Sound and Duke Energy

Source: Montana Department of Revenue Spreadsheet

Department of Environmental Quality, "Understanding Electricity in Montana", December 2002. Table E-1.

| <b>Table 2: Market Value of Hydroelectric Facilities -- Tax Years 1999-2003</b>                        |                                 |   |                |                |                |                   |                   |
|--|---------------------------------|---|----------------|----------------|----------------|-------------------|-------------------|
|  | Initial<br>Year of<br>Operation | Summer and<br>Winter Capacity<br>in Megawatts | 2003           | 2002           | 2001           | 2000              | 1999              |
| <b>PPL Montana</b>   |                                 |   |                |                |                |                   |                   |
| Black Eagle Dam (Cascade Co.)  | 1927                            | (19, 17)                                      | \$ 11,052,297  | \$ 12,757,093  | \$ 12,582,163  | \$ 11,787,896     | \$ 5,364,784      |
| Cochrane Dam (Cascade Co.)   | 1958                            | (52, 32)                                      | 38,916,164     | 44,491,381     | 44,853,849     | <b>43,336,021</b> | <b>11,303,803</b> |
| Hauser Dam (Lewis & Clark Co.)   | 1907                            | (16, 17)                                      | 8,005,426      | 5,824,813      | 5,451,239      | <b>3,917,603</b>  | <b>7,166,789</b>  |
| Holter Dam (Lewis & Clark Co.)   | 1918                            | (36, 48)                                      | 30,848,819     | 35,615,947     | 35,323,078     | <b>32,808,951</b> | <b>8,691,750</b>  |
| Kerr Dam (Lake Co.)  | 1938                            | (180, 165)                                    | 43,132,030     | 50,024,854     | 50,400,602     | <b>42,289,768</b> | <b>17,474,975</b> |
| Madison Dam (Madison Co.)  | 1906                            | (9, 9)  | 6,777,127      | 7,146,582      | 6,234,685      | <b>2,533,506</b>  | <b>12,822,577</b> |
| Morony Dam (Cascade Co.)   | 1930                            | (48, 48)                                      | 35,080,159     | 40,291,450     | 40,519,282     | <b>39,195,155</b> | <b>6,777,957</b>  |
| Mystic Lake Dam (Stillwater Co.)   | 1925                            | (11, 11)                                      | 3,583,224      | 3,385,534      | 3,026,143      | <b>2,685,099</b>  | <b>10,315,994</b> |
| Rainbow Dam (Cascade Co.)  | 1910                            | (37, 37)                                      | 16,550,505     | 18,856,658     | 18,875,292     | <b>17,592,704</b> | <b>15,361,498</b> |
| Ryan Dam (Cascade Co.)   | 1915                            | (60, 60)                                      | 52,718,098     | 60,142,622     | 60,727,968     | 58,770,941        | 13,347,373        |
| Thompson Falls Dam (Sanders Co.)   | 1915                            | (90, 90)                                      | 60,578,939     | 69,151,101     | 69,932,522     | 66,793,715        | 45,812,799        |
| Total PPL Montana  |                                 | (558, 556)                                    | \$ 307,242,788 | \$ 347,688,035 | \$ 347,926,823 | \$ 321,711,359    | \$ 154,440,299    |
| <b>NorthWestern Energy--Milltown (Missoula Co.)</b>  | 1906                            | (2.6, 2.2)                                    | 5,297,244      | 5,147,787      | 5,546,000      | 6,577,400         | 6,645,763         |
| <b>Avista--Noxon Dam (Sanders Co.)</b>   | 1959                            | (556, 516)                                    | 63,436,861     | 65,762,863     | 64,682,793     | 74,909,624        | 81,999,897        |
| <b>PacifiCorp -- Bigfork Dam (Flathead Co.)</b>  | 1910                            | (4.2, 4.2)                                    | 3,126,175      | 3,242,838      | 2,340,572      | 2,311,520         | 2,252,723         |
| <b>Total -- All Dams</b>   |                                 | (1,120.8, 1,075.4)                            | \$ 379,103,068 | \$ 421,841,523 | \$ 420,496,188 | \$ 405,509,903    | \$ 245,338,682    |
| Source: Montana Department of Revenue Spreadsheets   |                                 |   |                |                |                |                   |                   |
| Department of Environmental Quality, "Understanding Electricity in Montana", December 2002. Table E-1. |                                 |   |                |                |                |                   |                   |



kilovolt transmission lines owned by the Bonneville Power Administration (BPA) in seven western Montana counties. The purpose of the line was to transmit electricity from Colstrip Units III and IV in Rosebud County to the Pacific Northwest. The Montana Power Company had constructed the line from Colstrip to Townsend (and paid property taxes on the line), but because the company was unable to negotiate a right-of-way agreement across the Flathead Indian Reservation, it requested that BPA undertake the construction of the remaining portion of the line from Broadwater County to the Montana border.<sup>2</sup> BPA completed construction of the line in 1983. Under existing law at the time, the beneficial use tax would not have applied to the new transmission lines. In 1983, the Montana Legislature extended the beneficial use tax to electric transmission lines and associated facilities having a design capacity of 500 kilovolts or more (Ch. 683, L. 1983). The utilities argued that the imposition of the tax violated due process and equal protection under the U.S. Constitution. The utilities also argued that they did not have the right to possession, control, or exclusive use of the lines. In three separate cases, the Montana Supreme Court upheld the state's authority to impose the beneficial use tax on the investor-owned utilities for the use of the lines.

More recently, Williston Basin Interstate Pipeline, Montana-Dakota Utilities, EnCana Energy, Touch America, and Qwest have disputed the property valuation or classification, or both, and are paying property taxes under protest. The total amount of property tax protests, including PPL Montana, is about \$25 million.<sup>3</sup>

In tax years 2000 and 2001, PPL Montana disputed the Department of Revenue's valuation of their generation property. Because PPL Montana and the Department were unable to resolve the differences, PPL Montana requested that the issues be resolved through the alternative dispute resolution provision of 15-1-211, MCA. PPL Montana initially argued, among others things, that the department had:

- undervalued its pollution control property (property class five);<sup>4</sup>
- overstated the value of PPL Montana's property by the double inclusion of construction work in progress;

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<sup>2</sup>"Beneficial Use Tax and Protested Taxes", Property Taxation and Other Issues Before the Revenue Oversight Committee, (Helena, Montana Legislative Council, December 1988), pp. 49-60.

<sup>3</sup>Mike Dennison, "Qwest to Protest \$3.5 Million in Montana Taxes", *Great Falls Tribune*, December 3, 2003.

<sup>4</sup>Class five property is taxed at 3% of market value (15-6-135, MCA) and class thirteen property is taxed at 6% of market value (15-6-156, MCA).

- improperly assessed PPL Montana's generation property as centrally assessed property (resulting in the taxation of intangible personal property);<sup>5</sup> and
- valued PPL Montana's undivided interest in Colstrip Units I and II at a value that was much higher than that of another taxpayer (Puget Sound Energy) having identical interest in the generation facilities.

The dispute resolution process failed to resolve the differences, and PPL Montana has appealed the valuation of its property to the State Tax Appeal Board. A hearing before the board is expected next spring. As indicated in Table 1, the Department of Revenue has adjusted the market value of pollution control; however, PPL Montana claims that a certain amount of pollution control equipment is still improperly classified as class thirteen property.

The table below shows the amount of taxes due and the proportion of protested taxes to the total taxes due for tax years 2000 through 2003.

| <b>TABLE 3: Estimated Proportion of PPL Montana Protested Taxes by County, Tax Years 2000-2003</b> |  |  |  |  |
|--|--|--|--|--|
|  | 2000   | 2001   | 2002   | 2003   |
| County   | Property Taxes Due<br>Taxes Protested<br>(% Protested) |
| Cascade  | \$4,476,638<br>486,941<br>(10.9%)                      | \$4,789,471<br>313,940<br>(6.6%)                       | \$4,955,330<br>4,244,658<br>(85.7%)                    | \$4,690,021<br>2,904,272<br>(61.9%)                    |
| Flathead   | 45,918<br>3,788<br>(8.2%)                              | 59,802<br>3,920<br>(6.6%)                              | 60,238<br>51,606<br>(85.7%)                            | 53,363<br>0  |
| Gallatin   | 89,392<br>5,814<br>(8.2%)                              | 89,392<br>5,814<br>(6.5%)                              | 89,499<br>0  | 80,760<br>0  |

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<sup>5</sup>In 1999, the Legislature exempted intangible person property from taxation, effective for tax years beginning after 1999 (Ch. 583, L. 1999). However, the exemption of intangible personal property that is centrally assessed property was phased in over a 3-year period: 10% of the value of intangible property was exempt in tax year 2000, two-thirds was exempt in tax year 2001, and all of it was exempt in 2002 and thereafter.

**TABLE 3: Estimated Proportion of PPL Montana Protested Taxes by County, Tax Years 2000-2003**

|               | 2000   | 2001   | 2002   | 2003   |
|---------------|--|--|--|--|
| County        | Property Taxes Due<br>Taxes Protested<br>(% Protested) |
| Lake          | 933,677<br>87,239<br>(9.3%)                            | 1,208,440<br>79,218<br>(6.6%)                          | 1,176,248<br>1,008,927<br>(85.8%)                      | 1,041,716<br>664,581<br>(63.7%)                        |
| Lewis & Clark | 882,728<br>77,055<br>(8.7%)                            | 1,051,301<br>68,451<br>(6.5%)                          | 1,095,904<br>932,387<br>(85.1%)                        | 1,079,942<br>682,518<br>(63.2%)                        |
| Madison       | 45,986<br>3,766<br>(8.2%)                              | 128,456<br>8,319<br>(6.5%)                             | 146,188<br>125,240<br>(85.7%)                          | 140,503<br>89,636<br>(63.8)                            |
| Rosebud       | 3,894,674<br>1,067,127<br>(27.4%)                      | 4,676,183<br>1,117,796<br>(23.9%)                      | 4,755,576<br>905,324<br>(19.0%)                        | 4,509,776<br>1,100,187<br>(24.4%)                      |
| Sanders       | 1,345,984<br>122,746<br>(9.1%)                         | 1,418,294<br>88,722<br>(6.3%)                          | 1,457,793<br>1,191,956<br>(81.8%)                      | 1,463,105<br>895,322<br>(61.2%)                        |
| Stillwater    | 45,707<br>3,713<br>(8.1%)                              | 52,500<br>3,394<br>(6.5%)                              | 62,070<br>52,954<br>(85.3%)                            | 71,963<br>0  |
| Yellowstone   | 878,908<br>71,315<br>(8.1)                             | 1,266,050<br>83,749<br>(6.6%)                          | 1,615,975<br>68,266<br>(4.2%)                          | 1,453,056<br>86,144<br>(5.9%)                          |
| Total State   | \$12,619,796<br>1,929,430<br>(15.3%)                   | \$14,739,889<br>1,773,323<br>(12%)                     | \$15,414,821<br>8,581,318<br>(55.7%)                   | \$14,584,205<br>6,422,660<br>(44%)                     |

Note: Does not include taxes paid in Butte-Silver Bow

Source: PPL Montana, Property Tax Summary, Property Tax Years 2000-2003, unpublished.

PPL Montana has, as required by 15-1-402, MCA, notified county treasurers in the counties in which PPL Montana property is located of the amount of property taxes paid under protest. As noted above, one of the significant grounds for protest was the contention that the Department of Revenue improperly assessed PPL Montana on its undivided interest in Colstrip Units I and II "at values that are substantially in excess of the value of another taxpayer having an identical interest in the same generation facility. . .". The basis of the claim is that the higher valuation of Colstrip Units I and II violates "equal protection of the laws under the United States and the Montana Constitutions and, in addition, violates

Montana constitutional and statutory provisions requiring fair, just, uniform and equitable valuations of all taxable property".

According to PPL Montana, the overassessment on its interest in Colstrip Units I and II amounted to \$56.9 million in tax year 2002.<sup>6</sup>

In tax year 2002, PPL Montana extended the equalization argument to its hydroelectric facilities. It claimed that the Department of Revenue improperly assessed its hydroelectric facilities "substantially in excess of the value of another taxpayer [Avista] having similar hydroelectric generating capacity and assets in Montana". According to PPL Montana, the overassessment on its hydroelectric facilities amounted to \$283.1 million in tax year 2002.<sup>7</sup>

## **VALUATION OF ELECTRICAL GENERATION PROPERTY UNDER RESTRUCTURING**

It has been frequently noted that the property of vertically integrated utilities has been taxed at much higher rates than has the property of most other industrial enterprises. The rationale for higher property taxes, as well as certain other taxes imposed on electric utilities, was that the taxes could be passed on to customers in their energy bills. In a competitive environment, property taxes can be a significant component of an electrical generator's operating costs and, because they cannot automatically be passed forward to consumers, may affect a generator's ability to compete. In 1999, the Montana Legislature reduced the tax rate on electrical generation property from 12% to 6%. That rate, however, is still significantly higher than other types of industrial and commercial real and personal property. In tax year 2002, PPL Montana was assessed slightly more in taxes than MPC in tax year 1999.

Restructuring of the electric utility industry was intended to encourage retail competition by requiring the functional separation or divestiture of electrical generation property from vertically integrated utilities and by allowing other electricity suppliers to compete so that customers would have the choice of retail supplier at presumably lower prices. Since about 1996, 23 states and the District of Columbia have enacted some form of restructuring. More recently five states, including Arkansas, Montana, Nevada, New Mexico, and Oklahoma, have delayed restructuring, while California has suspended restructuring. Restructuring is at various levels of development in the remaining 17 states. The advance and retrenchment of restructuring has created a mosaic of economic and regulatory environments across the

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<sup>6</sup>See, for example, NOTICE OF PROTEST OF TAX PAYMENT in letter from PPL Montana to the Sanders County Treasurer, November 27, 2002. The letter notes that disputed valuation is related to the statewide valuation of the assets and not to the apportioned value in the county. The amount of the protested taxes is based on a "good faith" calculation of the amount PPL Montana is required to pay to the county.

<sup>7</sup>*Ibid.*

country. In those states that have not adopted restructuring and the regulatory environment remains intact, public utilities face little if any competition. On the other hand, public utilities in regulated states may face wholesale competition from unregulated generators. Given the changes brought about by restructuring, many observers have stressed the importance of reexamining assessment methods used to value generation property for property tax purposes.

As noted in the SJR 29 study plan, the unit value approach is used for valuing centrally assessed property. This approach uses companywide information regardless of location of assets or customer base to determine the market value of the business enterprise. Under this approach, the assessed value for each facility represents the allocated portion of the business enterprise and not the asset value of the property. A proportionate share of the total value of the enterprise is allocated to the state and apportioned to political subdivisions within the state.

The market value of property of a regulated public utility should equal the property's book value. This is because regulatory agencies allow the public utility to set rates to recover costs, pay debt, and provide a reasonable rate of return to shareholders. The future revenues from an asset should equal the investment made in the asset plus the return on investment.<sup>8</sup>

In an article originally presented at the March 2003 International Association of Assessing Officers, Judith Ross summarized the valuation controversies of the unit valuation of regulated utilities.<sup>9</sup> These included such things as the appropriate capitalization rate and income stream, the measure of obsolescence, the applicability of the stock and debt approach, and the weights that the three approaches to valuation should receive in the correlation process.

A significant aspect of restructuring is the question of whether assessment methods used by states to value generation property for property tax purposes need to be reexamined. In particular, there is the issue of whether regulated utilities will continue to be centrally assessed and wholesale generators locally assessed. Ross notes that because a significant amount generation owned by wholesale generators was owned by regulated utilities, it is possible that generation facilities of similar type and age will have different assessed values depending on whether they are centrally assessed or locally

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<sup>8</sup>Mary B. Cain, "Valuation of Electric Utility Generating Assets in a Competitive Environment", Master's Thesis (Morgantown, WV, West Virginia University, 2001), p. 8.

<sup>9</sup>Judith Ross, "The Valuation of Electric Companies - Past, Present, and Future", April 3, 2003. The article may be found at [http://www.ryanco.com/develop/The\\_Valuation\\_of\\_Electric\\_Companies\\_-\\_Past,\\_Present,\\_and\\_Future.html](http://www.ryanco.com/develop/The_Valuation_of_Electric_Companies_-_Past,_Present,_and_Future.html).

assessed.

In Montana, existing class thirteen generation property is currently centrally assessed using the unit value method.<sup>10</sup> As Tables 1 and 2 indicate, there are electrical generation facilities of similar type, if not always similar age, that have different valuations. In addition, there may other issues related to valuation if and when new generation comes on line in Montana and the new generation is locally assessed.

Ross and others have proposed some alternatives to the valuation of electrical generation facilities. One proposal would be to use replacement cost new, less depreciation. The rationale of this method is that generation property under a competitive environment should be valued on the basis of using modern replacement technology. Combined cycle gas turbines are considered state-of-the-art technology. This type of generation is less expensive to construct, is more efficient than coal-fired, and has fewer environmental concerns than does coal-fired generation. However, given the volatility of gas prices, it may be more economical to operate coal-fired generation facilities. In general, however, using replacement costs related to gas turbines for valuing a coal-fired generation facility would reflect considerable amount of obsolescence; that is a lower value.

Another proposal would be to use a discounted cash flow analysis model rather than the direct capitalization of net income or gross cash flow. This method would require developing an income stream and discounting that stream to the present. The discounted cash flow method may be difficult to apply in practice because of the volatility in the energy markets and the ability to acquire the appropriate information.

## **CONCLUSION**

The valuation of electrical generation property is complicated by the slow and erratic pace of restructuring in Montana as well as other states. Owners of generation facilities in Montana are operating in different economic environments: one primarily in competitive markets and the others primarily in the traditional regulated markets. PPL Montana has raised some significant issues related to the valuation of its property. It may be that the courts, not only in Montana but in other states as well, will play a significant part in how the valuation of generation property proceeds. The SJR 29 study will look at how other states have responded to the complicated issue of valuation of electrical generation

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<sup>10</sup>This is not a requirement for valuing class thirteen property. A stand-alone electrical generation facility would be assessed under the asset valuation model.

facilities and review legal challenges to valuation.

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