

Taxation of Energy Generating Facilities  
During Construction and Operation

Research and Information Division  
Washington State Department of Revenue

July, 1977

8106080195

## PREFACE

This report is prepared in response to House Floor Resolution 76-82 which recognized the increasing demand for electrical energy in Washington and our neighboring states, the substantial financial investment in present and contemplated power production sources, and the need to accumulate data and information with respect to economic and taxation impacts that energy and energy production facilities will have on the welfare of our state's citizens. The resolution specifically requests ". . . that the department of revenue, with the support of state agencies, associations of local governmental entities and the staff of the ways and means committee of the House of Representatives, investigate and analyze the present state and local energy tax system as such may relate to energy facility construction, and energy production and distribution systems . . ." Further, that the study ". . . encompass both state and local property and excise tax systems, the distribution of tax revenues, and as far as practicable, an analysis of alternative systems including a review of those programs in effect and emerging in other areas . . ."

The primary focus of the report will be on the tax application, impact, and potential problems associated with the construction and operation of an energy generation facility or system. The tax implications on the distribution systems will be covered only in a general way. The new generating facilities which are being constructed, because of the magnitude of investment involved and the fact of the concentration of two or more plants at the same site, will impact not only the specific construction community but the local region and the state to a degree and in a manner never before experienced. This is not to say that the situation with respect to the existing generating facilities is not somewhat analagous, only that their relatively small size compared to the current plants in terms of investment and impact does not raise the same sorts of concerns which prompted the resolution to be adopted.

Several large energy producing facilities are in the planning stages or early phases of construction in the State of Washington. The enormous investment these facilities will require has lead to widespread concern and interest among state and local government officials, state legislators, and the power industry about their prospective social and economic impact. These facilities will be located in rural areas and five of the seven nuclear plants presently planned will undoubtedly cost in excess of \$1 billion each to construct by the time of completion. Projects of this magnitude will obviously have a very significant impact on the state and especially the local economy, the demand for governmental services, and the collection and distribution of state and local taxes.

One of the least understood implications of this situation is how the construction and operation of a large energy facility will affect taxes and revenues. A central issue is whether or not our present tax structure is designed to effectively deal with the changes brought about by the development of large energy projects. This report attempts to provide some basic information from which to answer this question.

Undoubtedly, the report will also raise many questions. This is perhaps as it should be. It should be clearly understood that the report is intended to describe the present tax structure as it applies to the construction and operation of an energy facility, introduce the reader to the potential problems of energy taxation, why they may occur, and set the framework for developing some plausible solutions. No attempt has been made to make specific forecasts of revenue needs or tax collections for any specific project or for the state as a whole.

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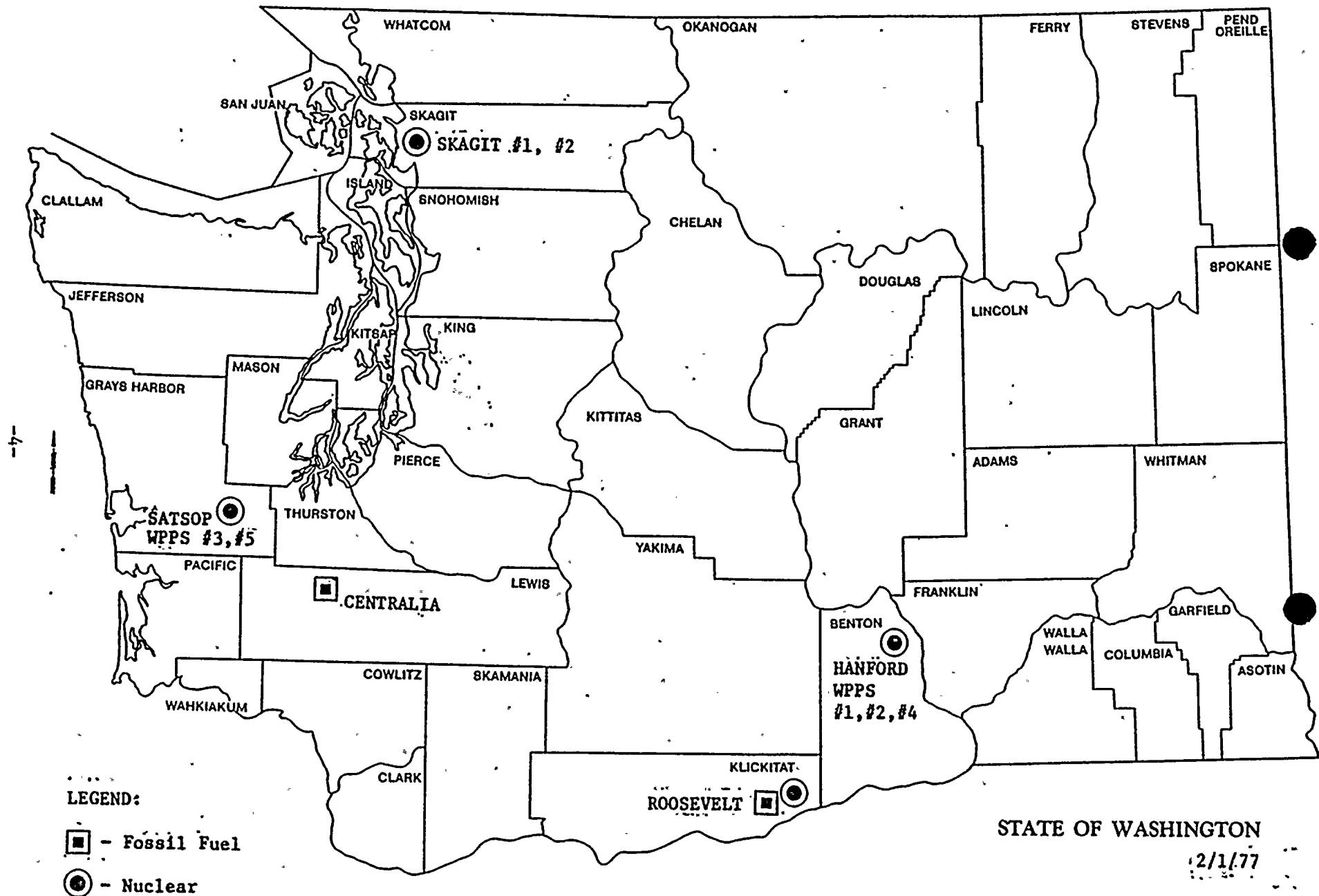
## BACKGROUND

Although experts disagree on the rate of increase in the demand for energy, nearly all believe that the need will certainly increase in the future and at a rate significantly above current consumption levels. For example, a forecast of the supply and demand situation for energy in our area by the Pacific Northwest Utilities Conference Committee in 1974 predicted that power needs by 1994 would be 165 percent greater than in 1975. Both public and private utility companies are making plans to meet the demand through construction of several large energy facilities in Washington and the other northwest states. The State of Washington as it has been in the past, will be in the forefront of this expansion of capacity in the northwest and a leader in the Nation. Nationwide, 75 nuclear plants are in the planning or construction stage for completion by 1985. There are presently 63 nuclear plants in operation.

For many years, the major source of electrical power in the northwest has been hydroelectric (water) power. Over the course of the next decade, however, current plans call for augmentation of the existing hydro plants with thermal (heat) facilities, especially those fueled by nuclear materials. The location of the planned and existing thermal plants is shown on Chart 1, and Table 1 indicates the existing and planned sources of electrical power in Washington by type of ownership through 1986. As the table shows, thermal power will account for an estimated 32 percent of total power production by 1986, compared with only 13 percent in 1974. Most of this increase will come from nuclear power plants with coal fired thermal plants also being considered. At this time there is one power plant in operation on the Hanford reservation which buys steam from a federally operated nuclear reactor, and another (complete with its own reactor) under construction, also located on the same reservation. A third is in the planning stage.

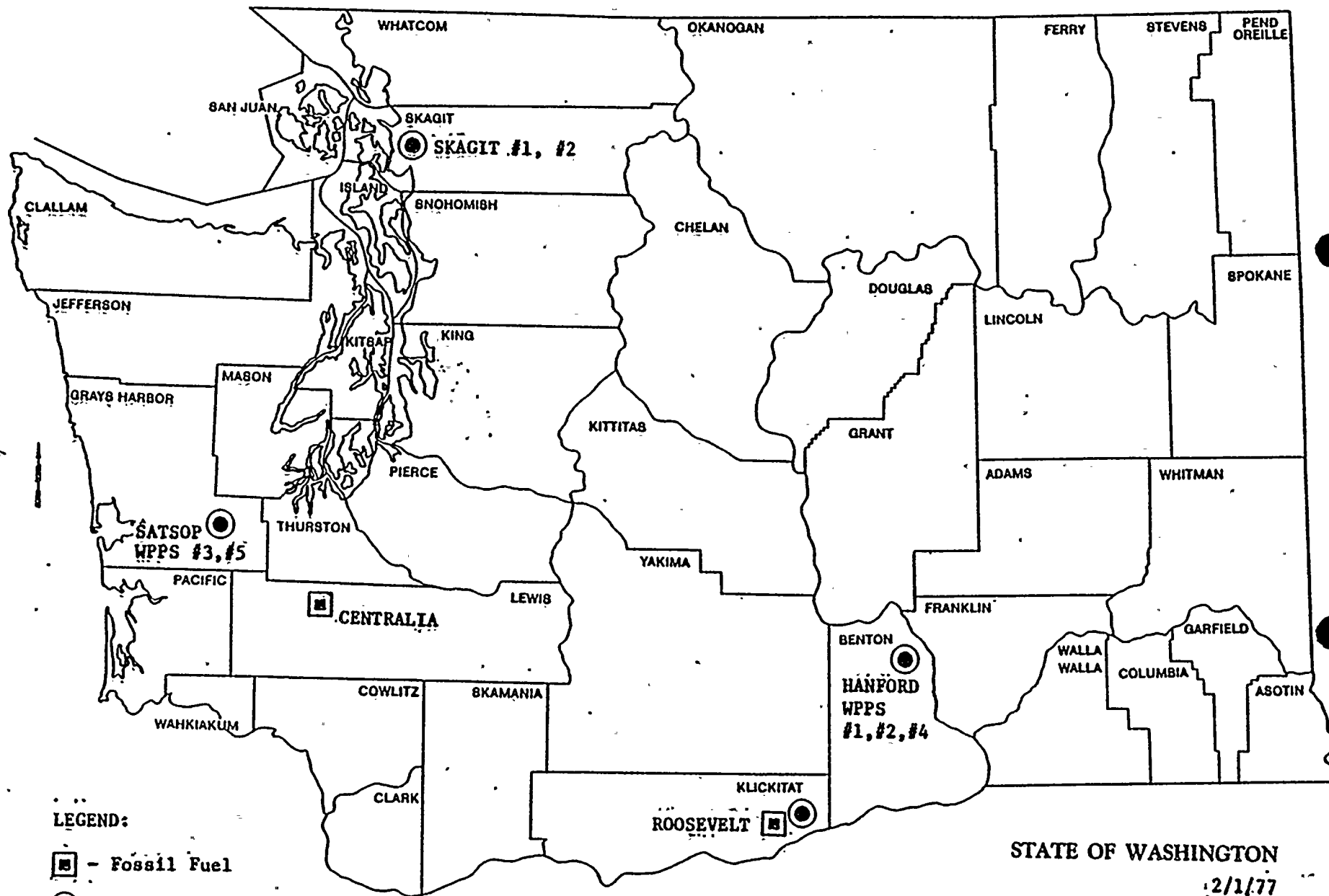
PLANNED AND EXISTING THERMAL POWER PLANTS  
IN WASHINGTON STATE

Chart 1



# PLANNED AND EXISTING THERMAL POWER PLANTS IN WASHINGTON STATE

Chart 1



## LEGEND:

■ - Fossil Fuel

● - Nuclear

STATE OF WASHINGTON

2/1/77

Table 2: Washington State Nuclear Power  
Plant Status

Location	Name	Ownership	Energy Capacity (MW)	Estimated Cost (Billions)	Estimated Completion Date
Hanford	WPPSS #2	Public Agencies	1,100	\$ . .965	Oct. 1979
Hanford	WPPSS #1	Public Agencies	1,250	1.200	Oct. 1982
Hanford	WPPSS #4	Public Agencies	1,250	1.400	April 1984
Satsop	WPPSS #3	Public & Private	1,240	1.370	Sept. 1983
Satsop	WPPSS #5	Public & Private	1,240	1.700	March 1985
Sedro Wooley	Skagit #1	Private	1,288	1.238*	Aug. 1984
Sedro Wooley	Skagit #2	Private	1,288	.870*	Aug. 1986

\* - 1976 dollars

Construction of these plants in our state, and others in the future, will intensify the concentration of pacific northwest power generating capacity in Washington. The capacity created will exceed our domestic needs and result in progressively greater emphasis on the exportation of power to meet the demands of other states in the region. As Washington becomes a more significant power exporter, the tax status of this resource as an interstate commodity will receive added attention; how it is treated in the receiving state, etc. In point of fact, the federal Tax Reform Act of 1976 contains provisions which place restraints on Washington and other states involved in the interstate sales of energy. The possible implications of the federal law are discussed in the section covering the taxation of energy during the operation stage of a generating facility.

Five of the seven thermal plants now seeking construction permits will be constructed, owned (in whole or in part), and operated by the Washington Public Power Supply System (WPPSS). This organization is a municipal corporation of the State of Washington authorized by Chapter 43.52 RCW. It is designated a joint operating agency (JOA) in the statutes, and will be referred to as such in the balance of this report. It is the only such organization operating under RCW 43.52 and is comprised of 18 public utility districts and the municipal electrical systems of Seattle, Tacoma and Richland. By statute, it is prohibited from being a distributor of power in the sense of a public utility district, being formed for the purpose of generation only, with generated power going to PUD's, private and municipal utilities, both in the state and out of state. A contract arrangement between WPPSS, the utilities guaranteeing the construction and operating costs, and the Bonneville Power Administration is used to assure, in effect, that the output is marketed through BPA.



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Table 1: Electric Power Plant Capability in  
Washington, 1974 vs. 1986  
(mega-watts)

Group Ownership	Type of Plant	Existing Plants <sup>1</sup>		Scheduled Plants <sup>2</sup>		Total Plants	
		MW	Percent of Total	MW	Percent of Total	MW	Percent of Total
Federal	Hydro <sup>3</sup>	10,326 <sup>4</sup>	52%	7,390	43%	17,716	48%
	Thermal	12	-	-	-	12	-
		<u>10,338</u>	<u>52</u>	<u>7,390</u>	<u>43</u>	<u>17,728</u>	<u>48</u>
Public Agencies	Hydro <sup>3</sup>	5,890	30	648 <sup>5</sup>	4	6,538	17
	Thermal	1,390 <sup>6</sup>	7	6,478 <sup>5</sup>	37	7,868	22
		<u>7,280</u>	<u>37</u>	<u>7,126</u>	<u>41</u>	<u>14,406</u>	<u>39</u>
Private	Hydro <sup>3</sup>	894	5	-	-	894	3
	Thermal	1,096	6	2,660 <sup>5</sup>	16	3,756	10
		<u>1,990</u>	<u>11</u>	<u>2,660</u>	<u>16</u>	<u>4,650</u>	<u>13</u>
Total	Hydro <sup>3</sup>	19,608	100%	17,176	100%	36,784	100%
	Thermal	17,110	87	8,038	47	25,148	68
		<u>2,498</u>	<u>13</u>	<u>9,138</u>	<u>53</u>	<u>11,636</u>	<u>32</u>

1 - Plants in existence December 31, 1974

2 - Plants scheduled for service January 1976 - June 1987

3 - Includes hydraulic and pumped storage generation

4 - Includes 5,465 MW in border installations

5 - All nuclear

6 - Includes 860 MW nuclear

Barring unforeseen political or economic obstacles, therefore, at least seven more new nuclear power plants will be operating in Washington by 1986. All of these plants are well into the planning or construction stages and their current status is summarized in Table 2. In addition, there is serious consideration being given to developing a very large thermal power center at Roosevelt on the Columbia River which could involve as many as 10 nuclear and fossil fueled thermal plants. Another private power company is actively seeking a site for a coal fired generating plant in eastern Washington.

The rapid growth of power production in Washington may result in significant problems as well as opportunities for the state and the region. On the one hand, the new generating facilities will provide the energy resources necessary for economic growth and thousands of new employment opportunities. On the other hand, the plants may have some potentially severe adverse impacts on local communities during the construction phase and result in some tax inequities during operation.

Each power plant project represents a huge investment of manpower and materials, taking from 5-9 years to construct with peak employment reaching over 2,000 workers. Although each project can be different in terms of local impact, depending on location and availability of labor, if there is a typical situation it is one where the bulk of the unskilled labor is satisfied by persons living in the immediate area and most of the skilled workers are within commuting distance of the job site. For the WPPSS projects at Satsop, for example, it is expected that the majority of the construction labor will commute daily to the site. Those who move to the area will bring their families and may stay 6-8 years, or only 6 months. They will settle in the communities relatively close to the job site creating an increased demand for permanent or temporary housing, or mobile home facilities.

The heavy influx of construction workers to the communities surrounding the job site may, and probably will, create significant social, economic and environmental impacts, especially if the community has a relatively small permanent population. These communities are faced with the need to provide extra housing, both temporary and permanent, classrooms, police and fire protection, water and sewage disposal, maintain or even construct new roads, recreation facilities, supply physicians and hospital services, and a multitude of other services and facilities.

The construction period can be characterized as a time when a large group of workers congregate at the job site to assemble equipment, material, and components, many of which have been manufactured outside the county and/or outside the state. When the job is completed, the labor force of 2,000 or more leave, with a different group of perhaps 100-150 employees remaining on a permanent basis to operate the generating plant. Each facility presents a unique set of impacts and problems, depending on the size of the plant, construction schedule, location with respect to labor supply and surrounding communities, and type of ownership.

How does the present tax structure apply to the construction and operation of such facilities and compensate the impacted communities for the cost of the extra services? Are the receipts likely to be sufficient to meet the needs and received in a timely fashion? These are the basic questions which the House resolution raises. This report discusses these points and others, commenting on possible problems during construction and operation, and offers some alternatives to remedy the shortcomings of the present state and local tax structure as it relates to the unique event of building and operating an energy generating facility.

STATE AND LOCAL TAXES  
ON ENERGY GENERATION AND DISTRIBUTION

The application of various state and local taxes to a specific energy generation project is dependent upon a number of factors, the most important ones being; 1) ownership (private, public, or a combination), and 2) whether the facility is in the process of being constructed, or in operation. Table 3 indicates the general application of the relevant state and local taxes, during construction, and operation, by type of ownership.

Table 3: Application of State and Local Taxes to Energy Generation Facilities

	Type of Ownership			
	Federal	City	PUD or JOA	Private
<u>During Construction</u>				
Sales/use tax-state.....	X*	X	X	X
Sales/use tax-local.....	X*	X	X	X
B & O tax-state.....	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
B & O tax-local.....	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
Real estate excise tax.....	-	-	-	X
Public utility tax.....	-	-	-	-
PUD privilege tax.....	- <sup>2</sup>	- <sup>2</sup>	- <sup>2</sup>	- <sup>3</sup>
Property tax.....	X <sup>4</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>5</sup>
Vol./mandatory payments.....	X <sup>4</sup>	X <sup>5</sup>	X <sup>5</sup>	X <sup>5</sup>
<u>During Operation</u>				
Sales/use tax-state.....	-	X	X	X
Sales/use tax-local.....	-	X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>
B & O tax-state.....	-	X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>
B & O tax-local.....	-	-	-	-
Real estate excise tax.....	-	- <sup>7</sup>	- <sup>7</sup>	- <sup>7</sup>
Public utility tax.....	-	X <sup>7</sup>	X <sup>7</sup>	X <sup>7</sup>
PUD privilege tax.....	-	-	X	-
Property tax.....	-	-	-	X
Voluntary payments.....	-	X	-	-

\* - presently in litigation

1 - On activity conducted inside incorporated areas only.

2 - Limited to contractors equipment and associated structures located at the job site. Value of generating facility not subject to property tax.

3 - Includes contractors equipment and structures, and cumulative value of generating facility created during construction.

4 - If authorized by Congress.

5 - If required by Energy Facility Site Eval. Council (thermal projects only).

Payments to school districts (if facility owned by a PUD, JOA or city) and to county government (if city owned) are required by statute.

6 - On portion of energy sold for consumption or distribution out-of-state.

7 - On sales to final consumers only.

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B & O tax-local.....	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
Real estate excise tax.....	-	-	-	X
Public utility tax.....	-	-	-	-
PUD privilege tax.....	- <sup>2</sup>	- <sup>2</sup>	- <sup>2</sup>	- <sup>3</sup>
Property tax.....	X <sup>4</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>5</sup>
Vol./mandatory payments.....	X <sup>4</sup>	X <sup>5</sup>	X <sup>5</sup>	X <sup>5</sup>
<u>During Operation</u>				
Sales/use tax-state.....	-	X	X	X
Sales/use tax-local.....	-	X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>
B & O tax-state.....	-	X	X	X
B & O tax-local.....	-	-	-	-
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Public utility tax.....	-	X <sup>7</sup>	X <sup>7</sup>	X <sup>7</sup>
PUD privilege tax.....	-	-	X	-
Property tax.....	-	-	-	X
Voluntary payments.....	-	X	-	-

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Payments to school districts (if facility owned by a PUD, JOA or city) and to county government (if city owned) are required by statute.

- 6 - On portion of energy sold for consumption or distribution out-of-state.
- 7 - On sales to final consumers only.

A discussion of each tax follows. As indicated, the relative importance of the various sources changes from the period of project construction to the period when the plant is in full operation. For the sake of clarity, therefore, the tax picture for each phase is discussed separately. An effort is made throughout to cover those situations in which the significance of a tax depends on the specifics of each energy project.

To assist the reader in this discussion, figures are included for some sources based on a hypothetical project. For purposes of the construction phase, the generating facility, with a design capacity of 1,000 mega-watts, is assumed to cost \$1 billion, with ownership alternatively composed of; 1) 100 percent public (nonfederal), 2) 100 percent private, and 3) 50 percent public - 50 percent private. For the operation phase, yearly sales are assumed to be 6 million mega-watts (which implies operating between 65-70 percent of capacity) at a yield of \$120 million (average price 20 mills/kwh). It should be mentioned, however, that the total revenue from the operation of a generating plant is not greatly altered by production changes, as most of the cost that must be recovered represents payments for operation and debt service.

The use of a hypothetical plant with these characteristics is intended only to aid the reader in understanding the application of the various state and local taxes, not to indicate the tax liability of any specific real world project.

#### Taxes During the Construction Phase

##### Sales/Use Tax

The sales tax is a consumer tax, paid by the buyer/consumer of tangible personal property to the seller, who is responsible for collection and remittance to the Department of Revenue. Besides including sales of tangible personal property to final consumers, the tax also applies to charges for labor and services rendered in connection with tangible real and personal property. The Department is responsible for administration of the state and the local sales tax. The rate of the state tax is 4.6 percent. The local rate is .5 percent, except in those geographical areas imposing the local .3 percent transit tax where the total is .8 percent.

A companion tax to the sales tax is the use tax. In general it applies to the use of any article of tangible personal property, the sale or acquisition of which has not been subject to the Washington retail sales tax. The rate is the same as the sales tax, with credit given for any legal sales or use tax paid to any other state in the course of acquiring the tangible personal property.

The sales and use taxes would be remitted monthly by the seller, or purchaser in the case of the use tax, due the month following the month of collection. State taxes are placed in the state general fund, and local taxes are returned to local entities every other month, after deduction of 1.5 percent for administrative costs. The 1.5 percent amount is also placed in the general fund.

→ County government receives 100 percent of the local sales/use taxes collected within the unincorporated areas, plus 15 percent of the local tax collected in cities and towns. Cities receive 85 percent of the tax collected within their boundaries.

The sales tax applies only to purchases involving the final consumer; any purchases of materials for incorporation into another product for resale are not subject to the tax. When the various subcontractors buy materials, therefore, many from Washington vendors located outside the county where the plant is to be constructed, no sales tax applies since the materials are for incorporation into another product. The state and local taxes do apply as the various phases of the project are completed and in essence sold to the owner. The base of the tax is the contracted price, including labor (except if the owner is federal). Some of the materials purchased by the contractors do not become components of the final project. The sales tax applies to these items at the point of purchase. In addition, equipment rented in connection with the performance of their work would be subject to the sales tax on the basis of the rental charge.

In the construction of a large energy facility, which would normally involve a prime contractor and a number of subcontractors, the prime contractor is the one technically selling the structure to the owner (buyer) and is responsible for collecting the sales/use taxes and remittance to the Department. In the case of projects involving a Federal owner, all of the contractors are considered to be the consumers thus paying the tax. The base of the tax on Federal projects is the cost of materials only, exclusive of labor charges.

The general rules governing which locality receives the local sales tax are as follows: 1) if the sale involves goods only, the tax is collected from and returned to the location of the outlet at which or from which delivery is made to the customer, 2) if the sale involves goods and labor, the local tax is collected from and returned to the location where the labor is performed. In the instance of the construction of an energy facility, the local tax will go to the area of the job site for the work done by the subcontractors, based on contract prices including labor. The tax on any materials they purchase which do not end up in the product sold to the owner, goes back to the location of the vendor.

In addition, the owner will frequently purchase many of the costly special purpose items such as turbines, generators, pumps, condensers, etc. Those items purchased from Washington manufacturers, or through

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In addition, the owner will frequently purchase many of the costly special purpose items such as turbines, generators, pumps, condensers, etc. Those items purchased from Washington manufacturers, or through



local offices of out-of-state manufacturers will be subject to the local sales tax at the location of the seller, and returned there. If, on the other hand, the owner deals with the out-of-state vendors directly (because they maintain no in-state sales office, for example), the transaction is subject to use tax at the point of delivery (the job site), which receives the local tax.

In summary, the greatest share of sales tax on the construction of an energy facility, except for a federal project, will be collected by the prime contractor from the owner on the total contract price of the project, including labor. The local sales tax will be returned to the location of the project with the exception of that portion applied to purchases of components directly by the owner from in-state manufacturers or sales offices of out-of-state manufacturers. The majority of use tax will normally be reported by the owner on large ticket equipment purchases directly from out-of-state vendors. The status of the owner, whether public utility district, joint operative agency, municipality, or private, has no bearing on sales or use tax liability. All are subject to the full tax on the total project cost. For federal projects, the application is generally the same, except for the exclusion of labor, and the contractors are considered the consumers and pay the tax.

On a project that costs \$1 billion to physically construct over a period of 5-9 years, the combined state-local sales/use tax would total \$51 million. Of this amount the state share would be \$46,075,000 (\$46 million from the state 4.6 percent tax and \$75,000 from the 1.5 percent portion of the \$5 million local tax) and the local share \$4,925,000. The bulk, if not all, of the local share returned to the construction area would go to county government as the facility is constructed in an unincorporated area.

In addition to the general sales taxes, the statutes authorize localities to form a public transportation benefit district. The district does not have to follow any specific boundaries, and can encompass both incorporated and unincorporated areas. Upon approval of a majority of the voters residing in such district, a sales tax of .1, .2 or .3 percent can be imposed. If this is the case, as it is in Grays Harbor County at the present time (.3 percent) there would be an extra \$3 million in local tax liability during construction. The local share, after deduction of \$45,000 for administration by the Department, would be \$2,955,000. This amount is earmarked for transportation district purposes and cannot be used for general county or city purposes.

#### B & O Taxes

The state business and occupation tax is imposed on gross receipts from sales, or income, without any deduction for operating expenses such as cost of goods sold, labor costs, interest, discounts, delivery costs, taxes or any other losses or expenses. The present general rate is .4664 percent on manufacturing, wholesaling and retailing activities,



with a 1.06 percent rate on service business. All contractors and consultants associated with the project would be subject to the tax on the total income they receive, regardless of the type of ownership.

The state B&O tax on a project that costs \$1 billion to build is difficult to estimate due to the possibility of a variety of circumstances concerning; 1) how much goes to the prime contractor, 2) how much to subcontractors who are involved directly in construction, and 3) the extent of direct purchase of major items by the owner. The prime contractor is subject to the .4664 percent rate (as a retailer selling to the owner), with the subcontractors involved in the construction also subject to a .4664 percent rate (as wholesalers). Engineering firms, architects, surveyors, etc., who are performing services, pay 1.06 percent on their income.

The statutes empower cities and towns to impose business taxes upon private firms and special taxes on municipal and private utility companies within their jurisdiction. The base of these taxes varies but they generally fall into one of three categories; 1) percent of gross receipts, 2) a fixed fee by type of business, and 3) fees based on the number of employees or amount of floor space. There is no maximum or minimum rate or fee. The most common gross receipts rate is 1/10 of 1 percent (except for taxes on public utility gross receipts). As a practical matter, however, there will be essentially no city B&O tax liability associated with the construction of an energy facility, as the location will be in an unincorporated area. County government is prohibited from imposing such business taxes in the area outside cities and towns.

#### Real Estate Excise Tax

The local real estate excise tax would not apply to the purchase of real property for the generating facility except in the case of private ownership, assuming the seller was also a private party. The Federal government is specifically exempted, and sales of real property to or by municipal corporations, including cities, counties, public utility districts, and joint operating agencies, are also exempt.

The rate of the tax is 1 percent of the sales price. Of the total tax, 1 percent is retained by county government for administration and the remaining 99 percent goes to schools in the county where the transfer occurred. The school portion is considered as local revenue for the purpose of state aid and, therefore, through the operation of the equalization formula would reduce the amount of state general fund support by the amount of the local tax revenues.

#### Public Utility Tax

This tax which is imposed on the gross receipts from the sale of energy to in-state consumers, does not apply during the construction stage. When the plant is in operation (except if Federal), sales of energy instate to final consumers will be subject to a 3.6 percent rate on gross proceeds from sales payable by the utility distributing the power to the final consumers.



### Public Utility District Privilege Tax

The PUD tax, also paid by joint operating agencies, is in lieu of the property tax, since these entities are exempt from property tax by reason of their status as municipal corporations of the state. It would not apply during the construction phase since the base of the tax is composed of revenue derived from; 1) the generation of energy for resale, and 2) the distribution of energy to final consumers. This is a primary tax source during the operation phase and will be discussed in detail in the following section.

### Property Tax

The property tax will apply only to generating facilities that are wholly or partially owned by private companies. Such plants will be subject to valuation by the Department of Revenue and as such, pay taxes on a value that has been equalized through application of the general level of assessment (indicated ratio) found to exist for locally assessed property. For example, if the average level of assessment in the county in which the generating plant is located is 90 percent, then 90 percent of the Department's full value determination will be certified to the county for the purposes of application of state and local property tax levies.

During construction, value is created each year and the total value in place as of April 30 each year is subject to valuation. Because of the unique character of a nuclear facility, for example, the valuation process is a special and complicated one. The traditional market or sales approach is not really applicable since such properties do not change hands. Heavy reliance, therefore, must be placed on cost or investment evidence, especially during the construction period when the facility is not as yet a "going operation".

The relationship between cost and value is not always a one to one proposition. Consideration must be given to the fact that a nuclear plant is a very high cost structure, involving the need to finance huge sums of money, has a relatively short life span (30-40 years), is allowed a much faster depreciation rate by the Federal government than other industry, and requires provision for the cost of shutting down the operation at the end of its useful life. Generating facilities using coal for the power source are much the same except for their longer life.

As a result, the value of a plant costing \$1 billion is almost impossible to speculate, but would be somewhat less than \$1 billion prior to equalization for property tax purposes. The value would remain relatively stable during the early life of the facility but decline quite dramatically as it nears the end of its life. This is if the facility is 100 percent privately owned. If 50 percent private - 50 percent public, the amount would be adjusted accordingly. When the full value is determined each year the average assessment level found to exist in the county is used to equalize the value with locally assessed property.



A source of property tax revenue to the locale of the generating facility, regardless of ownership, will be the equipment and structures of the various contractors. The equipment, being personal property, is subject to valuation if present on January of each year. The value and prospective tax revenue from such property can be significant, especially due to the heavy and costly equipment associated with many of the contractors, and it can be in place for quite a length of time, depending on the nature of the work.

Consideration should also be given to the concept of unit valuation, as dual plants are constructed at once or additional plants are added to an existing system. Under this universally accepted practice the entire system is valued as a entity without consideration to the specific value of any one of the parts. When the value of the total unit has been determined, the value is allocated to the various components for the purpose of taxation by the governmental bodies in which they are located. The value of two \$1 billion plants is not necessarily equal to twice the value of a single plant, and the addition of a \$1 billion plant to an existing system may not add \$1 billion to the value of the system and may result in less value allocated to the new plant than if it were the only such plant in the system. Privately owned generating facilities will almost always be part of a system valuation and the value allocated to a specific power plant can only be determined on a case by case basis.

The new value (construction) in place each year is exempt from the 106 percent limitation on regular levies, but only for the levy year when it is new. As the plant moves toward completion, the existing value exclusive of the amount of new construction is subject to the limitation.

The impact on property tax revenues is also difficult to estimate. It depends, of course, on the relative importance of the value to the various districts in which it is located and whether or not they choose to utilize all of the potential by imposing the maximum regular levy rates authorized by law or cut back on rates because of the addition to the tax base. To the extent that the tax base is increased there will be a shift of burden to the plant from the previously existing taxable property.

An example of what can happen to property tax rates when a large thermal facility is placed on the tax rolls can be obtained from the Trojan plant located in Columbia County, in Oregon, near Rainier. This 1,200 mega-watt nuclear facility, which is 70 percent privately owned, cost approximately \$500 million to construct. It is valued by the Oregon Department of Revenue under the unitary concept and its allocated taxable assessed value is \$331 million for 1977 taxes, representing nearly 40 percent of the tax base for the entire county. Oregon has a statutory 100 percent assessment level like Washington and the \$331 million represents 100 percent of the Department's allocated full value determination for the private portion. The presence of this large value resulted in a reduction in the tax rate applied to all taxable property





in the county, as the plant pays \$10.70/\$1,000 compared to \$15.50/\$1,000 countywide, and the statewide average of \$23.96/\$1,000. Prior to the first portion of the plant value appearing on the rolls, the tax rate in the area was about \$25/\$1,000.

#### Voluntary/Mandatory Payments

The Legislature has recognized that the construction of electrical energy generating facilities does cause financial burdens to counties, schools, and other jurisdictions which are not adequately dealt with by the existing tax structure. Consequently, a series of statutes have been enacted authorizing voluntary and in some cases mandatory payments to the affected districts during the construction period. These statutes cover only facilities owned by public utility districts, joint operating agencies, and cities. No such payments are statutorily authorized for privately owned facilities. Private companies can make such payments if authorized by the management but approval of the utilities and transportation commission would be needed to add such payments to the rate base. Chart 2 summarizes the authorized payments.



Statutory Payments to Impacted Taxing Districts From Construction of Generation  
Facilities

Facility Owner	RCW	Voluntary or Mandatory	Recipient Jurisdiction	Purpose/Amount
PUD, JOA	54.28.110	Voluntary	Any	Compensation for removal of property from tax rolls due to construction of a generating plant. Amount not to exceed the amount being received at the time of construction.
PUD, JOA	54.36.020	Mandatory	School districts	Compensation for maintenance and operation cost burden due to construction. If total enrollment growth exceeds 3 percent in any year during construction, district compensated for "construction pupils." Payments not considered local revenue for purposes of state aid.
PUD, JOA	54.36.060	Voluntary	School districts	Compensation for increased financial burden on district to fund capital construction caused by construction of energy project. No amount specified. Amounts received not considered local revenue for purpose of state aid.
PUD, JOA	54.36.070	Voluntary	County, other districts	Compensation for increased financial burden because of construction of energy project. Amount not more than amount which property tax on contractors engaged in the work of the construction project fail to meet the increased financial burden.
City	35.21.425	Mandatory	Schools, County	Applies to hydroelectric generating facilities only. Compensation for loss of revenue and/or increase in financial burden, in a county other than the county in which the owning city is located, for; 1) providing for the public peace, health, safety, welfare and added road maintenance in the county, and/or 2) compensation to schools from burden of increased enrollment by reason of the construction or operation of generating facility. No amount specified.



Although some of the payments are labeled voluntary, they have in essence been made mandatory by the Energy Facility Site Evaluation Council, discussed in the following section. Regardless, there seems to be universal sentiment on the part of the owners of the facilities that it is their public duty to compensate the districts for the financial burden that their projects create which is not adequately or timely met by the existing tax structure.

#### Energy Facility Site Evaluation Council Powers

The Energy Facility Site Evaluation Council (EFSEC) set up under RCW 80.50.030 has considerable authority over financial agreements between the owners of energy facilities (whether publicly or privately owned) and the impacted taxing districts. RCW 80.50.040 gives the Council rather broad powers with respect to the standards which must be met by the facility owners before the proposed site will be certified. The Governor has final authority to approve or disapprove a site certification, but EFSEC sets the standards and determines whether the applicant meets those standards. Based on the Council's findings, it recommends to the Governor either the approval or disapproval of the application for site certification. One of the things EFSEC requires is a satisfactory agreement between the project owners and the impacted taxing districts to cover the net additional financial burdens brought on by construction of the facility. To the extent that EFSEC exercises this authority, all other taxes and in lieu payments authorized by law to relieve fiscal problems during construction may be superfluous. It should be noted that EFSEC has authority only over site certification for thermal power projects. Hydroelectric projects would fall under the terms of the previously mentioned voluntary/mandatory payment statutes.

#### Taxes During the Operation Phase

As Table 3 indicates, the importance of the various state and local taxes change quite dramatically once the generating plant is completed and in operation. The primary taxes during this period are the public utility tax, public utility district privilege tax, and the property tax. As contrasted with the application of these and other taxes during construction, where the affected taxpayers are predominantly private contractors, the type of ownership of the generation facility is paramount in determining tax liability during operation.

#### Sales/Use Tax

Other than the purchase of ordinary supplies and materials, the major item subject to the sales/use tax will be the nuclear or fossil fuels actually used in the generation of electrical power. The sales tax applies unless the fuel is extracted, manufactured, or purchased out-of-state, then the state and local use taxes would apply. The only type of owner who would not be liable for the tax is Federal.



A variety of situations will exist for securing all or a portion of fabricated nuclear fuel. Some plants will purchase the uranium, have it converted, enriched, and fabricated, all out-of-state. If this is the case the use tax will apply when delivered to the site, and the local tax will be returned to the plant location. Other plants will purchase the uranium from out-of-state, where it will be converted, and then have it enriched and fabricated in Washington (Hanford). In this case, the sales tax will apply at the point of transfer (Hanford) and the local tax returned there. Still a third possibility is to purchase the ore in Washington (being mined here), ship it out-of-state for conversion and enrichment, but have the enriched ore fabricated into usable fuel at Hanford. Similar to the preceding case, the local sales tax will be returned to the Hanford area.

The annual cost of fuels used in a nuclear plant is substantial and the cost of fuel has and is rising quite rapidly. Normal practice is to contract for fuel during construction (or before) for delivery at a time and for a specific period in the future. Assuming an annual cost of \$50 million per project, the combined state/local use tax would be \$2.55 million. Of this amount the state portion would be \$2,303,750 (\$2,300,000 from the 4.6 percent state tax and \$3,750 from the 1.5 percent administrative portion of the local tax) and the local yield \$246,250. The cost to fuel a coal plant, presuming the mineral will be purchased out-of-state, could be perhaps half again as much.

#### B & O/Public Utility Tax

The substantial amounts of state business and occupation tax generated during the construction process would essentially disappear during operation as the contractors move out subsequent to completion of the project. As previously described, the likelihood of any local tax is negligible due to the location of the job site in an unincorporated area.

On a continuing basis the application of the state business taxes to the sale of energy by the generating facility will depend on; 1) whether the sale is in-state or out-ofstate, 2) whether at retail (to the final consumer) or wholesale (for resale to final consumers), and 3) the implications of the federal Tax Reform Act of 1976 on the ability of Washington to tax interstate sales.

Retail sales from the generating plant directly to Washington consumers will be subject to the public utility tax of 3.6 percent on the income from such sales. This income is not subject to the business and occupation tax. Generating plants operated by WPPSS will not pay this tax since they can only make sales to others for resale.

Since the public utility tax is only collected on sales to final consumers, the substantial amount of energy which WPPSS and the private plants may sell to Washington PUD's, the BPA, municipal utilities, and





other private utilities will not be taxed at the wholesale level. The 3.6 percent tax will apply when these entities (except BPA) sell the energy at retail to their Washington customers. Sales by BPA to consumers (direct customers) will not be subject to the tax.

Sales of energy from generating plants to out-of-state customers are presently subject to the business and occupation tax under the manufacturing classification (.4664 percent) and exempt from the public utility tax. Enactment of the federal Tax Reform Act of 1976, however, raises some question of whether or not Washington can impose any business and occupation tax on such sales under existing law. A section of the federal act prohibits discriminatory taxation against out-of-state manufacturers, producers, wholesalers, retailers or consumers of electricity with respect to taxes on the generation or transmission of that electricity. Discrimination is deemed to exist if a greater tax burden results, either directly or indirectly, on electricity which is generated and transmitted in interstate commerce than on electricity which is generated and transmitted in intrastate commerce.

How the federal law will affect our own tax situation is not at all clear at this point, and may have to be resolved through litigation. The Department's position is that our present law does not discriminate since the burden on out-of-state purchasers of power generated in Washington is less than the burden placed on domestic purchasers (consumers). The tax applied on the energy shipped out-of-state is the .4664 percent business and occupation tax, while the cost to a Washington consumer includes the 3.6 percent public utility tax. This position assumes that the discrimination test applies to the tax on the electricity itself, or the cost to the consumer.

There is another school of thought, however. This takes the position that the discrimination test is applied to the tax burden on the persons generating the electricity. Under this view, Washington's .4664 percent business and occupation tax, which is technically on the generation and transmission of the energy, would be disallowed. The logic is that there is no tax on the generation per se if delivery is made in Washington, as the public utility tax which the generator pays is applied to the distribution of the power if sale is made directly to a final consumer and no public utility tax (nor business and occupation) is collected if the generator sells the energy to another for distribution.

#### Public Utility District Privilege Tax

As the report was being completed the 1977 Legislature amended the public utility district privilege tax statutes to provide for the separate treatment of thermal electric generating facilities located on a federal reservation which are placed in operation after the effective date of the legislation. At present this would affect only the WPPSS plants scheduled for Hanford. The description to follow has incorporated this change.



This tax, which is paid by PUD's and joint operating agencies only, was enacted in 1941 and is intended to be in lieu of the property tax, as these entities are exempt from the property tax as municipal corporations of the state. The tax is levied on the privilege of operating facilities for the generation and distribution of electrical energy. Since five of the seven nuclear power plants scheduled for completion in Washington in the near future will be substantially owned by a joint operating agency (WPPSS) and selling a major portion of the power through PUD's, this tax will assume a very important role as a continuing revenue source to local government. For this reason, it will be examined in some detail.

Although the PUD tax is in lieu of the property tax; being an excise tax it is unlike the property tax in almost every respect. For example: 1) the amount of tax bears no direct relation to the value of the generating plant or distribution system, 2) it doesn't produce any revenue during the period of construction, 3) it is paid once a year, 4) it has a multiple rate structure, and 5) while the distribution of a portion of the tax is fixed (the rate applicable to certain new thermal generating facilities). the distribution of the other portion, with the exception of an amount for the state, a required percent for schools, and to cities (if applicable) is not fixed. Another essential difference is that the PUD tax will remain fairly constant or increase throughout the life of the plant as it is not affected by depreciation in the value of the facility.

The tax is levied basically in two parts, one based on income from the retail sale of purchased energy to final consumers (paid essentially by the distribution systems, the PUD's), and the other on the income from the sale of self-generated energy (at the wholesale level), to consumers or to others for resale (paid by the generating facilities). The specific rates are as follows:

Applicable to All Distribution and Generating Systems, Except Thermal Generating Facilities\*

- 2% - on sales of all electric energy to consumers who are served by the distribution system owned by the district.
- 5% - of the first four mills per kilowatt hour of revenue from the sale of self-generated energy for resale, and
- 5% - of the first four mills per kilowatt hour of self-generated energy distributed to consumers.

Applicable To Thermal Generating Facilities\*

- 1.5% - of the wholesale value of energy produced for use or sale.

\*Steam power electrical energy producing facilities utilizing nuclear or fossil fuels, which is located on a federal reservation, and placed in operation subsequent to the effective date of the 1977 amendatory legislation.



In our hypothetical example, if the plant was at Hanford (100 percent publically owned), the tax under the new 1.5 percent rate would be \$1.8 million per year (\$120 million x .015). If the plant were 100 percent JOA at Satsop, the tax would be based on the 5 percent rate, and be \$1.2 million per year (6 million KWH x 4 mills x .05). In the latter instance, although the sales price of the power for resale would be much greater than 4 mills/KWH, the tax is calculated on only the first 4 mills/KWH. If the ownership were 50 percent PUD or JOA, and 50 percent private, the tax would be reduced by one half. If 100 percent privately owned, there would, of course, be no PUD tax. The PUD's purchasing power from the plant for resale would pay the 2 percent portion of the PUD tax on their income.

The tax is administered by the Department of Revenue and is due by June 1, based on sales of energy the preceding calendar year. Collections from sales during 1975 totalled \$5.9 million, with 42 percent coming from the 2 percent tax rate and 58 percent from the 5 percent rate.

Distribution of the tax receipts from the 2 and 5 percent rates is somewhat complicated. State government retains four percent (general fund) and the remaining 96 percent is returned to local government, with receipts from the 2 percent and 5 percent rates distributed separately. Collections from the 2 percent rate go to each county in proportion to the gross revenue from sales within each county. Distribution of the 5 percent rate portion is dependent upon the location of the reservoir and generating facilities, powerhouse and dam, if any, whether in one county or a number of counties.

The amount of revenue returned to the counties is credited to the various taxing districts (county, city, town, school and road) in the manner which the county commissioners deem most equitable, with the following exceptions; 1) not less than 35 percent to school districts having PUD or JOA property, and 2) not less than 3/4 of 1 percent of the gross revenues derived from the sale of electric energy in cities and towns shall be remitted to those cities and towns. As a practical matter, in most cases county government retains the amount not required to be distributed to schools and cities, although the tax can be distributed to the junior taxing districts.

Distribution of the 1.5 percent tax as established by the 1977 legislation is: 1) 50 percent to the state general fund for the support of schools, 2) 22 percent to counties, 3) 23 percent to cities, 4) 3 percent to fire protection districts, and 5) 2 percent to library districts. The distribution to districts other than the state is to all such districts within 35 miles of the federal reservation (designated the "impacted area"). The allocation among these districts is made on the basis of the proportion that each (such as a county) represents of the total population of all similar districts (such as all impacted counties).



## Property Tax

Much the same comments concerning the property tax apply during the operation stage as during construction. The value of the plant once completed and in operation will be re-examined in detail with probably some upward adjustment in value the result. As the years go by, however, the value should decline rather rapidly due to the accelerated depreciation provision and setting aside funds for the eventual shutting down of operation.

## Voluntary/Mandatory Payments

The authorized payments by PUD's and JOA's during construction do not apply during operation. Presumably, the yield from the PUD tax and local sales tax will be sufficient as an ongoing source of revenue to local taxing districts.

For city owned utilities, however, who are not subject to the PUD tax and would otherwise have no ongoing requirements to support local government, voluntary payments are authorized in the statutes. These are summarized in Chart 3.

Chart 3: Statutory Payments to Impacted Taxing  
Districts by City Owned Energy Facilities  
During Operation Period

RCW	Voluntary or Mandatory	Recipient Jurisdiction	Purpose/Amount
35.21.420	Voluntary	County	To provide for the public peace, health, safety, and welfare of the facilities and personnel employed in operating the generating facility, in the county(s) other than the county in which the owning city is located.
35.21.42	Voluntary	Any	Applies only to cities in a class A county west of the Cascades (Pierce, Snohomish) owning and operating a public utility and having distribution facilities outside its city limits. Compensation to cities, counties and taxing districts in which the facilities are located, based on the amount of retail sales of energy other than to governmental agencies, in such areas.





### Energy Facility Site Evaluation Council

The Energy Facility Site Evaluation Council has included in the site certification agreement for Satsop and other plants language which would require payments to taxing districts even after the construction period, in the event that tax revenues are not sufficient to cover the additional costs imposed on such districts by the facility. Assuming that this provision is within the authority of EFSEC, the same approach could be applied with respect to all the nuclear plants planned for the state. After the initial construction period, it remains to be seen whether provision for in lieu payments will even be necessary.



## POTENTIAL PROBLEMS WITH EXISTING TAX STRUCTURE, COMMENTS

As previously discussed, the construction of an energy generation facility, in an area located in the unincorporated portion of a county, involving very large investments of capital and labor, will place severe pressures on the local community to provide a variety of services. The need for the extra services will be concentrated in the 5-9 year construction period, when the resident work force of perhaps 2,000 or more will increase the demand for housing, shopping facilities, recreation opportunities, schools for their children, police and fire protection, roads, etc. Furthermore, most will reside in the nearest city, while the job site which generates most of the tax revenue will be in the unincorporated area. The need for these services during operation will be significantly reduced as the construction workers and their families move on, leaving 100-200 permanent employees to operate the facility.

How does the existing tax system, and voluntary payments, described in the previous section measure up to this situation? To answer this question, it is helpful to consider the application of the various taxes based on the following criteria:

1. Is the local government revenue received at the time when it is needed?
2. Does the revenue go to the units of government which must bear the burden of financing the services?
3. Is the revenue sufficient to fund the extra services?

Since the major focus of this report is on the local impact, the tax revenue and voluntary payments which accrue to local units of government will be emphasized. Consistent with the established format of the previous discussion, the construction phase will be separated from the operation phase.

### Construction Phase

The only significant sources of revenue to local government associated with the construction are the local sales tax, the voluntary/ mandatory payments and, to a lesser extent, the property tax (private ownership only). The local business and occupation tax, since it covers only business income generated inside cities and towns, will not be significantly affected.

The major problem with the local sales tax in the construction environment is that the bulk of the revenue will go the county, while most of the impact will be felt in the city(ies) where the construction population lives. That is inherent in the nature of the tax; it is



generated from and returned to the jurisdiction where the construction takes place. Furthermore, 15 percent of the sales tax collected in the cities is returned to county government. Although the unincorporated areas will also experience a need to provide additional services, such as roads, police, and fire protection, the large amount of local sales tax received will most likely far exceed requirements. The cities, on the other hand, will not realize nearly as much sales tax during construction, although they will certainly benefit from the retail expenditures of the construction families. The amounts they do receive will typically be far from sufficient to finance the additional services. Timing is not a significant problem with the local sales tax, as the monies are returned within a couple of months of payment.

The property tax will only apply if the generating facility itself is wholly or partially privately owned. There will, of course, be value generated (mainly in the cities) from the housing and other construction associated with the influx of construction workers. There will also be property tax collected from the contractors locating in the area. If the facility is privately owned, the increase in the tax base and potential for property tax yield may exceed the amount needed for county government, roads, and perhaps the schools, depending on the location and how much value is added each year. The 106 percent limitation on regular levy income will not apply to the new construction value created each year during construction and, therefore, it will not inhibit the ability of these districts to derive property tax revenue. The limitation will progressively take hold as the project moves towards completion, and will totally apply when done. The cities, however, would not derive any direct property tax revenue from the generation plant, and the additional amounts accruing from housing and other new construction in the cities will not prove adequate to meet the extra needs.

The property tax was designed at a time when property values were distributed in fairly close relationship to the population and the need for governmental service. It is really not equipped to adequately deal with a situation where there is a very high concentration of value generated which may be many times greater than the existing value in some districts in which it is located, especially one which carries with it a low level of continuing employment.

Timing is a problem with the property tax. Taxes are levied one year and collected the next. The need for services is immediate with the arrival of the workers. An obvious cash flow difficulty is inherent in this tax system.

If the facility is publicly owned, the property tax will not apply to those elements of construction in which title is held by the public entities and will not be available to provide any financial assistance. The PUD tax, which is in lieu of the property tax, will also not afford any relief to local government during the construction period as it is based upon revenue generated from the sale of energy once the plant is in operation.



The best existing source of revenue capable of dealing with the problems during construction are the voluntary/mandatory payments and the requirements of EFSEC, which are mandatory. The powers of EFSEC seem capable of assuring that the mechanisms are established to get the proper amount of money to the right jurisdictions at the right time. The problem still remains with the parties to agree upon the proper amounts, a process which may entail considerable negotiation.

#### Operation Phase

The ongoing pressures for services will be much less during operation, as the construction population leaves, although certainly greater than before the project commenced. There will be a need to sustain the level of services built up during the construction years, although presumably at a reduced level, to provide not only for the permanent families associated with operation, but the business activity, new industry, and population which will be drawn to the area as a result of the existence of an energy facility.

The onus for supplying these revenues will fall most heavily on the public utility district privilege tax (to the extent the plant is publicly owned) and to a lesser degree on the local sales tax and property tax (to the extent privately owned).

The local sales/use tax has the same problem during operation as in construction. The bulk of the ongoing tax will be collected on purchases of fuel. The local tax will be returned either to the plant location (if purchased out-of-state) or to the location of the vendor (if in-state). There will be relatively little ongoing sales tax received by cities as a result of operation of the generating facility.

Once the project is completed, the property tax yield (for regular levies) of the various districts in which the plant is located will be limited by the 106 percent law. Due to the value added to the rolls from a privately owned generating plant, there will be an opportunity to reduce property tax rates (both regular and special) and, in any event, there will be a shift in burden. The plant will assume its share of the total taxes, while the other property will experience a reduction in its share, both in a relative and absolute sense, in all districts in which it is located. The smaller the district the greater the shift. In the smallest district containing the plant, such as a fire or hospital district, the property in existence prior to construction may be paying only a small fraction of the property taxes that they previously experienced.

Again, due to the location of the plant, those districts which need a continuing source of revenue to sustain the added services may not be the ones who are the recipients of the property taxes resulting from the





facility itself. If this is the case those who are may receive a continuing source far in excess of need. Timing is not a problem with the property tax during the operation stage.

Given the fact that five of the seven nuclear power plants presently scheduled will be partially if not completely publicly owned, the public utility district privilege tax will assume the major role as the continuing source of revenue to local government. Although enacted to be in lieu of the property tax, the two sources bear little similarity as previously discussed.

The dominant portion of the tax in the locale of the generating plant will either be: 1) the five percent tax (on the first four mills per KWH) on the wholesale sale of energy to others for resale, if the thermal plant is not located on a federal reservation, or 2) the new 1.5 percent tax on wholesale value (no ceiling) if located on a federal reservation. Although reported from and returned to the county in which the generating plant is located, the tax is in reality paid by the final consumers throughout the state in the form of their charges by the PUD's and other utilities who purchase the power from the generating plant. The generation portion of the PUD tax is, in essence, exported throughout the state, yet the tax collected accrues to the benefit of the county or the impacted area in which the generating plant is located.

The disposition of PUD tax collections from the 2 and 5 percent rates, with the exception of four percent for the state, and a minimum for schools and cities (if there are sales inside cities) is at the discretion of the county commissioners. Being discretionary does offer latitude to direct revenue to the specific districts where the need is greatest, but certainly does not guarantee that such will be the case. It presents the opportunity for the best and worst of situations, given the large amounts of PUD tax which will be available.

The four percent portion for state government was established in 1941 when the tax was enacted. Presumably, this proportion was to return to the state its just share of receipts as one of the taxing districts which levied part of the property tax. When the tax was enacted, there was only the two percent rate for distribution to final consumers, no five percent generation tax. If this is the logic for the state share, the present proportion of regular levies made at the state level for schools, plus the addition of the generation tax (which is exported throughout the state) should be reason enough to reexamine the distribution to state government and other jurisdictions. Along these same lines, the mere size and impact of the generating facilities raises the question of whether some of the tax should be shared with counties in the proximity of the county where the facility is located as is now the case with facilities on federal reservations.

The distribution of the new 1.5 percent tax does take these items into account, by recognizing an impact area beyond the immediate location



of the generating plant, and fixing the allocation in law. The new amendment to the law does, however, create a situation where thermal generating facilities are treated differently, depending on whether on a federal reservation or not. If they are, the PUD tax will most likely be greater, the distribution fixed and spread among the districts in the impacted area. If they are not, the tax will most likely be less, the distribution to districts will be different, essentially not fixed, and restricted to the county in which the plant is located. Furthermore, since the 1.5 percent tax has no ceiling, such as the 4 mill/KWH limit of the 5 percent tax, the tax payments for a plant located on a reservation will increase over time as the price of power rises, while the tax on a similar plant not on a reservation will remain relatively stable over the life of the project. These dissimilarities in treatment should be the subject of further investigation.

The significant amount of PUD tax which will be collected from each generating facility, and returned to the county of origin or impacted area on a continuous basis, can result in the receipt of more revenue by certain districts than is needed. The school district in which the plant is located could very well realize more revenue from the 5 percent PUD tax than it is presently receiving in state aid. Since PUD tax receipts are considered a local resource for the purposes of distribution of state general apportionment, the result would be a reduction or elimination in state aid to such districts. Even if state aid were eliminated, however, the districts would still realize more net revenue than prior to the plant's operation. This would not be the case for school districts in the impacted area of a plant paying the 1.5 percent tax, as 50 percent of receipts go to the state general fund to become part of the general apportionment to all school districts in the state.

Although some districts may receive more revenue than needed, others, where perhaps the need to fund continuing services is greater, may not. Again, this situation is capable of being rectified by the county commissioners (for the 5 percent tax only) if the adversely affected districts are within the county receiving the tax.

The only voluntary payments which are expressly authorized on a continuing basis are those by city owned utilities. They can be paid to county government in the case of a generating plant, and to any jurisdiction in the case of transmission facilities, the latter applying to utilities owned by cities in class A counties west of the Cascades. No generating facilities are contemplated at present in any class A county.

It remains to be seen whether or not EFSEC can or will require continuous payments to impacted areas, regardless of ownership.



## ALTERNATIVES FOR SOLVING FISCAL PROBLEMS

This section presents several alternative approaches to resolving the fiscal problems created by the present tax structure during the construction and operation of an energy project. The Department surveyed several other states to determine what sort of fiscal remedies have been tried elsewhere, and those with potential application in Washington are briefly described. Also discussed are possible modifications in the existing sources.

### During Construction

The survey by the Department of the 50 states disclosed that there are 82 major energy facilities under construction in the United States (both nuclear and non-nuclear) with many more in the planning stage. In spite of the large number of projects, relatively few states have taken specific action to alleviate local fiscal problems which arise during the construction of a facility. The approaches described were selected because they may have some potential for application in our state.

#### Wyoming

The State of Wyoming has in recent years adopted several new laws intended to assist local government to pay for services and public facilities required as a result of energy facility construction. The Legislature in 1975 created the Wyoming Community Development Authority. It is a public corporation rather than a new state department, with the board of directors appointed by the Governor. The Authority is permitted to issue up to \$100 million in tax free revenue bonds, the proceeds from which can be used to finance a wide variety of public facilities and services:

It is empowered to lend money to local government to pay for civic projects such as water and sewer systems, roads, hospitals, schools, recreation facilities and public buildings. In addition, housing may be provided through a mortgage purchase program or a "loan to lenders" program. Some \$300,000 was provided by the Legislature to start the Authority but it is intended to be self supporting after the initial appropriation.

Another Wyoming law adopted in 1975 increased the proportion of the state sales tax distributed to local government. Although not directly applicable in Washington, because of the constitutional prohibition of collecting a state tax for a local purpose, the same concept could be adopted by possibly allowing an extra amount of local option sales tax for a special "energy generation district", analogous to the maximum .3 percent tax authorized for local mass transportation purposes.



### Wisconsin

In 1971, the State of Wisconsin adopted a state property tax on major energy facilities which is in lieu of all other taxes except special assessments. The rate is equal to the average of all state, county, and local taxes. The same constitutional problem would exist for adoption in Washington, although the idea is worth consideration since it is a means of steering the property tax generated from private generation facilities to those areas where it is needed most. The timing problems inherent in the property tax would still remain. This concept is somewhat comparable to the "tax base sharing" plan adopted by Minnesota, discussed in the following section.

### Utah

The 1975 Utah Legislature enacted a law which allows utility companies to prepay the state sales tax according to projections of what they expect the tax liability to be from the construction of the energy project. The state can then apply this revenue to improve or construct state roads in the impacted area or make special grants to counties for roads. The State Board of Education must allocate its share to support schools in the districts where the project is located. It should be noted that concerns have been expressed about the effect of prepayment of taxes on company financing and federal taxes.

### Maryland

In 1976 and 1977, a bill was introduced in Maryland which would create a \$2.0 million fund within the state treasury which would be used to make loans to counties and cities in which major energy facilities are being built. The loans would be made to cover the added costs incurred by local government as a result of the project. The money could be used to pay for schools, roads, water systems, temporary housing, law enforcement, and many other local government services. In addition, up to \$40,000 could be provided in advance of construction for planning purposes. The bill provides that loans be repaid from local tax receipts on the facility once in operation. The measure passed one house but not the other in both sessions.

### Voluntary/Mandatory Payments

As previously discussed, there are a number of statutes on the books which authorize or require some form of negotiated agreement between the owners of the energy facility and the local governments bearing the major impacts. These laws seem to provide a mechanism for easing the additional fiscal burdens on local government during construction. The chief advantage of individually negotiated payments is that they can be tailor made to accommodate the unique fiscal problems associated with each project.





The present statutes apply to public owners only, some being mandatory (aimed mostly at school districts) and some voluntary, and do not uniformly cover all the kinds of districts that are in need of extra funds during this period. Although EFSEC has in effect made such payments mandatory, expanded them to cover private as well as public owners, and formalized the process to include a wider range of impacted districts, there may be good reason to strengthen these laws to require such payments, with clear provision for credit against future tax liability during operation.

#### During Operation

##### The Generation and Capacity Tax

A proposal which has been considered by our own Legislature is a combination tax on design capacity and actual generated power. Such a tax has been suggested as a replacement for the PUD tax on nuclear plants only, and in some discussion as a replacement for all existing taxes including the property and public utility taxes. It is intended to deal with the potential for windfall property tax revenues, provide a stable tax base with growth features, and more equitably distribute the tax receipts.

Although the details of each proposal vary, the basic approach is to have the tax composed of two parts, one being the design capacity of the generating facility and the other on the actual power generated for sale. The rates would be on a kilo-watt hour measurement, rather than the revenue received. Thus, it is suggested, the tax would be stable (the capacity factor), and allow for growth as the volume of power generated increases over time.

The distribution portion of these tax proposals varies as well, but they all recognize that the impacted area may be greater than the county where the plant is located, and the portions for each of the specified districts including the state are fixed rather than discretionary as in the case of a part of the present PUD tax.

##### Tax Base Sharing

A concept which has been adopted in the State of Minnesota could be implemented in Washington with a change in the constitution. It would seem to be applicable only in the context of a property tax on private ownership, however. In Minnesota, 40 percent of all new assessed value (new construction) in a specified geographical area (Minneapolis--St. Paul) is pooled and shared by all communities in the area. The balance of such new construction is taxed by the districts in which it is located by the traditional property tax mechanisms. The pooled portion is separately taxed from the non-pooled portion with different rates. It is also separately distributed.

This concept recognizes that new construction impacts more than the immediate geographical area of the job site. Therefore, a portion of

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the added value is made available to a wider area to fund the extra services required. The proportion that each community receives is based on a formula to send larger shares to those with lower than average per capita property valuation.

The same type of approach could be applied to the added value created by a large energy facility. Opportunity would exist to carefully specify the impacted area, what portion of the value would be shared, provide for the proper rate, and tailor a distribution system to get the funds where the need exists. A constitutional amendment would be needed in Washington to utilize this approach.

#### Uniform Taxation of Thermal Plants

Another idea which has received some consideration over the years in Washington would be to place all thermal plants under a single tax to replace either the property tax, PUD tax, or voluntary payments, as the case may be. All nonfederal thermal generating plants, whether public (PUD, WPPSS, or municipal) or private would be subject to the same generation tax, perhaps in the order of the 1.5 percent rate recently enacted as part of the PUD tax. Such a proposal would have the benefit of erasing the concern of some that the PUD tax, property tax, or voluntary payments (by municipals) do not result in equivalent burdens on the same basic function, that of generating energy.

