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COMMUNITY ENERGY SYSTEMS
AND THE LAW OF PUBLIC UTILITIES

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Volume Fifty-One

WISCONSIN

Final Report of
A Study of the Impacts of Regulations
Affecting the Acceptance of
Integrated Community Energy Systems

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ABSTRACT

This report contains a detailed description of the laws and programs of the State of Wisconsin governing the regulation of public energy utilities, the siting of energy generating and transmission facilities, the municipal franchising of public energy utilities, and the prescription of rates to be charged by utilities including attendant problems of cost allocations, rate base and operating expense determinations and rate of return allowances. These laws and programs are analyzed to identify impediments which they may present to the implementation of Integrated Community Energy Systems (ICES). This report is one of fifty-one separate volumes which describe such regulatory programs at the federal level and in each state as background to the report entitled "Community Energy Systems and the Law of Public Utilities -- Volume One: An Overview." This report also contains a summary of a strategy described in Volume One -- An Overview for overcoming these impediments by working within the existing regulatory framework and by making changes in the regulatory programs to enhance the likelihood of ICES implementation.

PREFACE

One response to current concerns about the adequacy of the nation's energy supplies, in addition to reducing consumption of energy, is to make more efficient use of existing energy resources. The United States Department of Energy (DOE) has funded research, development and demonstration programs to determine the feasibility of applying proven cogeneration technologies in centralized energy systems, known as Integrated Community Energy Systems (ICES), to provide heating, cooling and electrical services to entire communities in an energy conserving and economic manner.

The relevant "community" which will be appropriate for ICES development will typically consist of a combination of existing or potential energy "wasters" -- i.e., installations with large energy conversion facilities which, when operated in a conventional manner, exhaust usable amounts of waste heat or mechanical energy -- and existing and potential energy users -- i.e., industrial, commercial, institutional or residential structures which obtain electricity and gas from a traditional central utility and convert part of it on site to space heating and cooling purposes.

In most current applications, energy conversion facilities burn fuels such as coal, oil or natural gas to produce a

single energy stream such as process steam or electricity for various industrial processes or for sale to other parties. In the conversion process, substantial amounts of energy may be wasted. For example, it has been estimated that from 60 to 75 percent of the potential energy available in fuel burned to generate electricity is lost in the process of generating and delivering the electricity.

The technology exists, however, to produce and utilize more than one energy stream from most energy conversion processes so that the input of a given amount of fuel could lead to the production of far more usable energy than is generally true in most steam production processes. This technology is the foundation of the ICES concept. Current examples of the technology can be found on university campuses, industrial or hospital complexes and other developments where a central power plant provides not only electricity but also thermal energy to the relevant community.

It is generally assumed by DOE that ICES will be designed to produce sufficient thermal energy to meet all the demands of their communities and that they will be interconnected with existing electric utility grids. Through such an interconnection, an ICES would be able to purchase electricity when its community's need for electricity exceeds the amount which could be produced from the level of operations needed to meet the community's thermal needs. In addition, when operations to meet thermal needs result in generation of more electricity than

necessary for the ICES community, the ICES would be able to sell excess electricity to the grid.

ICES may take a variety of forms, from a single owner-user, such as a large industrial complex or university campus, where all energy generated is used by the owner without sales to other customers, to a large residential community in which central power plant produces heat and electricity which is sold at retail to residents of the community. Since successful operation of an ICES presupposes that the ICES will be able to use or sell all energy produced, it can be anticipated that all ICES will at some point seek to sell energy to customers or to the electric utility grid from which the electricity will be sold to customers. By their very nature ICES are likely to be classified as public utilities under the laws of many, or even all, states.

Ross, Hardies, O'Keefe, Babcock & Parsons has undertaken a contract with the Department of Energy to identify impediments to the implementation of the ICES concept found in existing institutional structures established to regulate the construction and operation of public utilities. These institutional structures have been developed in light of policy decisions which have determined that the most effective means of providing utility services to the public is by means of regulated monopolies serving areas large enough to permit exploitation of economies of scale while avoiding wasteful duplication of production and delivery facilities. These existing institutional structures have led to an

energy delivery system characterized by the construction and operation of large central power plants, in many cases some distance from the principal population centers being served.

In contrast, effective implementation of ICES depends to some extent upon the concept of small scale operations supplying a limited market in an area which may be served by other suppliers of utility services. ICES may in many instances involve both existing regulated utilities and a variety of non-utility energy producers and consumers who have not traditionally been subject to public utility type regulation. Implementation of the ICES concept will also require a variety of non-traditional relationships between existing regulated utilities and non-regulated energy producers and consumers.

The purpose of this report is to generally describe the existing scheme of public utility regulation as it is likely to relate to the development and operation of an ICES, the construction of ICES facilities and the determination of relevant cost of service, rate of return and rate structure for the sale and purchase of energy by an ICES. Attention is given to the problems of the entry of an ICES into an energy market which has traditionally been characterized by a form of regulated monopoly where only one utility has been authorized to provide a particular service in a given area.

This report is one of a series of reports covering the law of each of the 50 states and the federal government and should be read in conjunction with Volume One in this series entitled Community Energy Systems and the Law of Public Utilities: An Overview. That volume provides a national overview of the regulatory programs described in detail for the particular state covered by this report. It also provides an analysis of the impediments to effective implementation of the ICES concept and a series of recommendations for responding to those impediments. In many jurisdictions legal issues similar to those likely to arise in the implementation of the ICES concept have not previously been faced. Thus, this series of reports cannot give definitive guidance as to what all of the answers are with respect to all issues which may face ICES implementation. However, by having an understanding of the issues which may arise in the course of an effort to implement ICES, an ICES developer will be better equipped to seek solutions.

Ross, Hardies, O'Keefe, Babcock & Parsons has been assisted in this study by Professor Edmund Kitch, Professor of Law at the University of Chicago Law School; Deloitte, Haskins & Sells, independent public accountants; and Hittman Associates, Inc., engineering consultants.

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We wish to acknowledge the efforts of numerous individuals who have assisted in the preparation of the series of reports which make up the Study of the Impacts of Regulations Affecting the Acceptance of ICES. A number of lawyers and paralegal personnel of Ross, Hardies, have assisted in the research, writing, critiquing, rewriting, proofreading and other efforts including Drew Kaplan; Linda Arbetman; Cheryl K. Hachman; Barbara L. Ross; Joel F. Bonder; Sally H. Newton; Susan N. Stearns; Richard F. Babcock; Donald W. Graves; Theda C. Snyder; Patricia J. Crowe; Susan E. Merritt; Eileen A. Muench; Elizabeth West; Catherine B. Lipscomb; Margaret R. Hessler; and Elizabeth Walter.

Preparation of reports covering regulatory programs in every state has taken considerable research effort and we are grateful to a group of law students who spent not only countless hours in libraries, but also a great deal of time on telephones contacting public officials around the country to secure information about utility regulatory programs. Among the students were Marchall Seeder; Carl Anderson; Locke E. Bowman, III; James G. Bullard; Bruce W. Dewald; Norman B. Julius; Bruce S. Klafter; Ruth B. Kleiman; Suzanne Metzel; Terrence J. Molinari; Alison Moss; Rose M. Urban; Garth D. Wilson; Linda Yi; Shell Bleiweiss and Neal Heriaud.

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CHAPTER 1

EXECUTIVE SUMMARY

I. REGULATION OF PUBLIC UTILITIES

The authority to regulate utilities in Wisconsin has been vested by statute in the Public Service Commission (Commission). The three member Commission is appointed by the Governor for terms of six years. Gubernatorial appointments require Senate confirmation.

Municipalities are given a limited role in the regulation of utilities in Wisconsin. They may require that utilities which provide service within their areas make such additions or improvements in their service capability as are reasonably necessary and in the public interest. Municipal actions are, however, subject to Commission review.

All utilities except cooperatives are subject to Commission jurisdiction. Similarly, all types of sales are subject to Commission jurisdiction save for sales made by providers who deal exclusively in wholesale sales. However, where sales are found not to be intended for and open to all members of the public, no Commission jurisdiction will be found. Hence a landlord's provision of utility services to his tenants will not make him a public utility.

The Commission is empowered to regulate the rates, capitalization, system of accounts, mergers and consolidations, construction and siting of new plants or expansion of existing facilities and standards of service of jurisdictional utilities.

A public utility must obtain a certificate of public convenience and necessity from the Commission before it can commence or expand service. Wisconsin law expressly forbids the duplication in electric services unless the Commission finds that existing services are inadequate. Duplication of other types of services are not expressly prohibited.

Commission decisions may be appealed by any person whose substantial interests have been adversely affected by the decisions. Review of the decision is in the circuit court and is confined to the record. The circuit court's decision may be appealed to the Wisconsin Supreme Court.

II. SITING OF ENERGY FACILITIES

Standards and procedures for siting new power plants are the responsibility of the Commission. Regulation of the siting of new power plants is also administered by the Department of Natural Resources (DNR) which exercises control over engineering plans and air, water, and solid waste disposal permits.

The Commission and the DNR have siting jurisdiction over any facility designed to generate more than 12,000 kilowatts and any transmission line over one mile in length and designed for carrying more than 100 kilovolts. Any such project requires a certificate of public convenience and necessity before it can be started. An application for a certificate must be filed not less than eighteen months prior to the anticipated start date of a generating facility and six months prior to the start date of construction of a transmission line. The Commission must hold a public hearing on the application.

In reviewing an application the Commission will consider the energy needs of the locality to be served, alternative sources of supply, alternative locations or routes, individual hardships, economic safety, reliability and environmental factors, and the extent and nature of adverse environmental impact. The Commission must also consider the project's impact on the overall development of the area to be served. The Commission may also consult with other interested state agencies and departments but is not required to do so.

Where the proposed generating or transmission facility does not meet the minimum size requirements for the siting statutes to be applicable, a Commission certificate of public convenience and necessity will still be required. Similarly, local and regional zoning and planning requirements will have to be met as well as applicable DNR permit requirements.

III. FRANCHISING OF PUBLIC UTILITIES

The authority to grant franchises to operate public utilities in Wisconsin is vested by statute in the state legislature, but a utility's franchise seems to flow automatically from its organization as a utility and its obtaining a certificate of public convenience and necessity from the Commission. Municipalities may only regulate a utility to an extent compatible with their police powers.

All franchises in Wisconsin have the effect of indeterminate permits. A utility operating under such a permit consents

to full Commission jurisdiction and also recognizes the right of any municipality it serves to purchase the utility, if the Commission so authorizes. Franchises have been construed by the courts to be exclusive, though the Commission may allow competition and duplication of services where public convenience and necessity so require.

IV. UTILITY RATE REGULATION

The statutes of Wisconsin vest authority to regulate rates of public utilities in the Commission. The Commission regulates the rates of investor-owned and municipally-owned and operated utilities. It has no rate jurisdiction over cooperatives.

No rate may be increased prior to a Commission investigation and hearing on the matter. Rate decreases may be suspended for up to four months beyond their effective date after which time they automatically take effect.

In determining a utility's rate base the Commission uses a wholly estimated test year and an original cost method of valuation. Where construction work in progress (CWIP) is less than 10% of the average net investment rate base, an adjustment is made in the rate of return which permits the utility to earn a rate of return equal to the cost of capital on that portion of CWIP. That portion of CWIP that exceeds 10% results in capitalization of related allowances for funds used during construction (AFUDC). The Commission has used the "incremental cost" method for allocation of rate base associated with different services being provided from the same facility.

When considering what expenses may be claimed by a utility, the Commission has followed a general test that the expenses be reasonable and reasonably related to the efficient rendition of utility service. Using this test, the Commission has disallowed institutional advertising costs, but has allowed the costs of charitable contributions. The Commission has not required the use of any one allocation methodology but has approved the use of "incremental cost" allocation for allocation of costs between services and the coincident peak demand method for allocation between customer classes.

The Commission allows normalization of the tax benefits achieved from accelerated depreciation and investment tax credits.

The Commission has not ordered the use of one particular method for determining return on equity. Rather, the Commission will consider all the relevant evidence and determine whether an increase in return on equity is warranted. Risk is one of the factors that the Commission considers, and it should be noted that the Commission awards an attrition allowance when determining a utility's revenue requirements. Finally it is worth noting that the Commission will use the double-leveraging method when considering a utility that is entirely owned by another utility or a holding company.

Though the Commission adheres primarily to a value of service methodology in setting rates it has evidenced a strong interest in marginal-cost pricing and has encouraged the use of

time-of-use pricing. The Commission has also adopted special tariffs which govern excess power generated by customers of a utility who maintain cogenerators,

No utility may issue securities without prior approval of the Commission. The Commission may not authorize the issuance of any securities unless they are for proper corporate purposes, in an amount not greater than is necessary to provide for the utility's immediate requirements or its prospective requirements over a reasonable period of time into the future. The Commission has held that securities may not be issued for merchandising activities.

CHAPTER 2

REGULATION OF PUBLIC UTILITIES IN WISCONSIN

I. PUBLIC AGENCIES WHICH REGULATE PUBLIC UTILITIES

A. State Regulation

The Wisconsin state legislature has designated the Public Service Commission (PSC) as the agency responsible for regulating public utilities, and has prescribed the manner in which such utilities are to be regulated.^{1/} The PSC consists of three commissioners appointed to staggered six-year terms by the Governor and confirmed by the Senate.^{2/}

B. Local Regulation

Municipalities are given certain limited regulatory powers over public utilities. They are allowed to determine the "quality and character of each kind of product or service" to be rendered by any public utility within the municipality.^{3/} They are also to determine all other terms and conditions upon which a public utility may be permitted to occupy the streets, highways or other public places within the municipality, to an extent not inconsistent with Chapters 196 and 197 of the Wisconsin statutes.^{4/} A municipality may also "require . . . such additions and extensions to [a public utility's] physical plant within said municipality as shall be reasonable

and necessary in the interest of the public, and to designate the location and nature of all such additions and extensions . . . subject to review by the [PSC]."^{5/} However, the PSC has original and concurrent jurisdiction with municipalities to require extensions of service and to regulate service.^{6/}

Municipalities may purchase and own public utilities;^{7/} however, such utilities are subject to regulation by the PSC.^{8/} Upon complaint by any public utility, the PSC sets a hearing and if it finds any contract, ordinance or resolution made by the municipality to be unreasonable, it will declare it void.^{9/}

II. JURISDICTION OF THE PUBLIC SERVICE COMMISSION

The PSC has the "power and jurisdiction to supervise and regulate every public utility" in Wisconsin.^{10/} "Public utility" is defined to include every corporation, company, individual and association, as well as municipalities that own, operate, manage or control any plant or equipment within the state for the production, transmission, delivery or furnishing of heat, light, water or power either directly or indirectly to the public. "Public utility" also includes any person engaged in the transmission or delivery of natural gas for compensation within the state by means of pipes or mains. Cooperatives organized for the purpose of furnishing heat, light, water or power to their members are expressly excluded from the definition and, as a result, from regulation by the PSC.^{11/}

Despite the above noted statutory provision covering both direct and "indirect" sales to the public, the courts have held that sales of heat or electricity to another utility for resale to the public will not cause the selling party to become a "public utility."^{12/} In Union Falls Power Co. v. Oconto Falls, the plaintiff furnished electrical energy to a municipality, which in turn, acting as a public utility, distributed the energy to the public. The court held that the plaintiff did not deal with the public directly or indirectly, rather it dealt with a utility, which in turn dealt with the public. The court concluded that this did not make the plaintiff company a public utility.^{13/}

Sales to another utility by an entity which already sells directly to the public, however, come under the jurisdiction of the PSC because of the other sales to the public. Union Falls is distinguished because the company involved in that case sold power only to another utility.^{14/}

In Re Wisconsin Natural Gas Co.,^{15/} the PSC held a wholesale natural gas company supplying gas to several local distributors to be a public utility. This decision is distinguished from Union Falls because the sales of the company involved were not solely by private agreement; rather, the natural gas company was willing to supply gas to all local public gas utilities should they so desire.^{16/} For another case, the Wisconsin court has also held that a utility, to

be deemed a public utility, need not serve the entire public, but rather only such a portion as can be served within the capacity of the utility's plant.^{17/}

In Cawker v. Meyer^{18/} a developer who sold power to his tenants and sold a small amount of excess power to a few neighbors was found not to be a public utility and hence, not subject to the jurisdiction of the PSC. The key is whether the utility plant is intended for and open to the use of all members of the public who may require the service.^{19/} Recent cases have followed Cawker v. Meyer, adding that the magnitude of power supplied to tenants is irrelevant. In Sun Prairie v. Public Service Commission, the court reviewed a declaratory ruling of the PSC which held that the furnishing of heat, power, light and water by the landlord to its tenants in a multiple apartment complex did not bring the landlord within the definition of "public utility." The court, in affirming the PSC's finding, reiterated its holding in Cawker. Although a landlord may be providing utility service to a large number of tenants, the fact that the tenants constitute a specific, defined and limited group means that they do not constitute "the public" within the meaning of the statute.^{20/}

A municipal electric company created under the Municipal Electric Company Act is a public corporation created by contract between two or more municipalities for the purpose of improvement of the municipal systems through joint action in the fields of generation, transmission and distribution.^{21/} One of the stated purposes for such joint action is to provide stability for municipal systems so that they can act jointly in developing bulk power and fuel supply programs and "community-based energy systems." A community-based energy system is defined in the statute as:

a small-scale energy production system or device which serves a local area or portion thereof, including, but not limited to, a small scale powerplant, using coal, sun, wind, organic, waste or other form of energy, if the system is located sufficiently close to the community to make the dual production of heat and electricity possible.^{22/}

Municipal electric companies are deemed to be "public utilities" subject to PSC powers of regulation.^{23/}

However, the terms and conditions and the rates at which such a company sells power and energy for resale are not subject to regulation by the PSC.

III. POWERS OF THE PUBLIC SERVICE COMMISSION

The PSC has regulatory power over: rates,^{24/} rate increases,^{25/} capitalization through its regulation of securities,^{26/} uniform accounts,^{27/} separate accounts for new construction,^{28/} depreciation,^{29/} mergers and consolidations,^{30/}

affiliated interest transactions,^{31/} construction of new plant,^{32/} siting of a new plant,^{33/} expansion of existing plant,^{34/} initiation of service,^{35/} abandonment of service,^{36/} standards of service,^{37/} and the use of a utility's facilities by other utilities.^{38/}

IV. AUTHORITY TO ASSIGN RIGHTS TO PROVIDE SERVICE IN A GIVEN AREA

Before any "public utility" may commence construction of any public utility plant, extend its facilities or render service in any municipality, it must obtain from the PSC a certificate authorizing the transaction of such public utility business.^{39/} Where a public utility is already providing service pursuant to PSC authorization, no license, permit or franchise may be issued to operate a competing utility service in the area without first securing from the PSC a declaration that public convenience and necessity require the second public utility.^{40/} This determination by the PSC is made after conducting a public hearing of all interested parties.

The courts have held that the exclusivity of an indeterminate permit for a telephone company is qualified and not absolute. Thus, the PSC can "require extension and duplication of lines if the public convenience and necessity requires."^{41/} The courts have also held in public carrier cases that the PSC can allow competition if it is "for the benefit of the traveling public."^{42/}

The Wisconsin statute contains a provision expressly prohibiting duplication in electric facilities. Neither a public utility nor a cooperative association may extend or render service to the premises of a person already receiving electric service from another public utility or cooperative, unless the other utility or cooperative consents in writing to the extension, or the PSC, after a hearing, determines that the service rendered or to be rendered by the other public utility or cooperative is inadequate or the rates charged for such service are unreasonable.^{43/} Thus, it appears that unless the PSC finds the existing service inadequate or unreasonably priced, any duplication of electric service facilities other than to which the parties agree, is expressly prohibited.

A public utility may not "abandon or discontinue any line or extension or service thereon without first securing the approval of the [PSC]." The PSC may impose terms and conditions it deems necessary to protect the public interest.^{44/} The transfer of certificates is not expressly provided for by the statute.

A separate provision of the statute contains a specific procedure and requirements for obtaining a certificate of public convenience and necessity for the construction of bulk electric generating facility or a high

voltage transmission line.^{45/} A "bulk electric generating facility" includes electric generating equipment designed for operation at a capacity of 300,000 kilowatts or more.^{46/} A "large electric generating facility" includes electric generating equipment designed for operation at a capacity of between 12,000 and 300,000 kilowatts.^{47/} Included in the definitions of "high-voltage transmission lines" are conductors of electric energy exceeding one mile in length designed to operate at a nominal voltage of 100 kilovolts or more.^{48/} The requirement that such facilities obtain a certificate of public convenience and necessity is part of the Wisconsin siting laws and is discussed more fully in Chapter 3.

V. APPEALS OF REGULATORY DECISIONS

Any order or determination of the PSC may be reviewed as provided in Chapter 227 of the Wisconsin Statutes.^{49/} A PSC decision may be appealed by any person whose substantial interests have been adversely affected by the decision.^{50/} A rehearing before the PSC prior to appeals to the courts is optional but not necessary.^{51/} Appeals may be taken to the circuit court by filing a petition for review with the clerk of the court within 30 days after service of the decision of the agency.^{52/}

In cases where a rehearing is requested the petition for review must be filed with the circuit court within 30 days after the denial of the application for rehearing or

after final disposition of the rehearing. ^{53/}

If it can be shown that new evidence material to the case was not presented for good reason, a court order may be obtained to force the PSC to hear the new evidence and reconsider their decision. ^{54/}

The review before the court is to be without a jury and confined to the record. In cases of alleged irregularities in the procedure before the PSC, testimony may be taken on the alleged irregularities. ^{55/}

Any party, including the PSC, may obtain a review of the final judgment of the circuit court by appeal to the court of appeals. This appeal must be taken within 30 days from the notice of entry of judgment. ^{56/}

FOOTNOTES

1. Wis. Stat. Ann. ch. 196 (West 1957).
2. Id. §195.01.
3. Id. §196.58 (1).
4. Ibid.
5. Id. §196.58 (2).
6. Id. §196.58 (5).
7. Id. §196.57 and ch. 197.
8. Id. §196.01 (1) (West Supp. 1980).
9. Id. §196.58 (4) (West 1957).
10. Id. §196.02 (1).
11. Id. §196.01 (1) (West Supp. 1980).
12. Chippewa Power Co. v. R.R. Comm'n, 188 Wis. 246, 205 N.W. 900 (1925), Central Wis. Power Co. v. Wis. Tel., Light Heat & Power Co., 190 Wis. 557, 209 N.W. 755 (1926).
13. Union Falls Power Co. v. Oconto Falls, 22 Wis. 457 265 N.W. 722 (1936).
14. Wis. Pub. Serv. Comm. 47 PUR (NS) 205 (1943).
15. Re Wis. Natural Gas Co., 39 PUR (NS) 50 (1941).
16. Ibid.
17. Wisconsin River Improvement Co. v. Pier, 137 Wis. 325, 118 N.W. 857 (1908).
18. Cawker v. Meyer, 147 Wis. 320, 133 N.W. 157 (1911).
19. Ibid.
20. Sun Prairie v. Pub. Serv. Comm'n, 37 Wis. 2d 96, 154 N.W. 2d 360 (1967).
21. Wis. Stat. Ann. §66.073 (West Supp. 1978).
22. Id. §66.073 (3).
23. Id. §66.073 (10) (a).
24. Id. §196.03 (West 1957).

25. Id. §§196.20(2), .37(1).
26. Id. §184.01, et seq (West 1957 and West Supp. 1980).
27. Id. §196.06 (West 1957).
28. Id. §196.10.
29. Id. §196.09.
30. Id. §196.80 (West Supp. 1980).
31. Id. §196.52 (West 1957 and West Supp. 1980).
32. Id. §196.49(1), (2) (West 1957).
33. Id. §196.491 (West Supp. 1980).
34. Id. §196.49(2) (West 1957).
35. Wayawaga Telephone Co. v. Public Service Commission,
141 Wis. 2d 536, 111 N.W. 2d 559 (1961).
36. Wis. Stat. Ann. §§196.78, 196.79, 196.81 (West 1957 and West
Supp. 1980).
37. Id. §§196.03, 196.16, 196.17 (West 1957).
38. Id. §196.04(1).
39. Id. §196.49(1).
40. Id. §196.50 (West Supp. 1980).
41. Lodi Tel. Co. v. Pub. Serv. Comm'n, 262
Wis. 416, 55 N.W. 2d 379 (1952), aff. 262 Wis.
416 (1953).
42. Chicago & Milwaukee Elec. R.R. Co. v. Pub. Serv.
Comm'n, 254 Wis. 551, 37 N.W. 2d 42 (1949).
43. Wis. Stat. Ann. §196.495 (West 1957 and West Supp. 1980).
44. Id. §196.81(1) (West Supp. 1980).
45. Id. §196.491(3).
46. Id. §196.491(1)(a).
47. Id. §196.491(1)(g).
48. Id. §196.491(1)(f).
49. Id. §196.41 (West 1957).

50. Id. §227.15 (West 1957).
51. Id. §227.12.
52. Id. §227.16 (West Supp. 1980).
53. Ibid.
54. Id. §227.19(1) (West 1957).
55. Id. §227.20 (West Supp. 1980).
56. Id. §227.21.

CHAPTER 3

SITING OF ENERGY FACILITIES IN WISCONSIN

I. PUBLIC AGENCIES WHICH ADMINISTER SITING LAWS

The public decision-making process with respect to the siting of electric energy facilities in Wisconsin is administered by the Wisconsin Public Service Commission (PSC) and the Department of Natural Resources (DNR) under an amendment to the Wisconsin public utilities statutes.^{1/} The PSC is responsible for the approval of long-term site plans and for the issuance of certificates of public convenience and necessity authorizing the construction of facilities subject to the siting statute.^{2/} In approving the long-term plans, other state agencies are required to participate, and local government units and individuals may participate in the PSC procedures.^{3/} However, in issuing certificates for specific sites, the PSC holds "public hearings"^{4/} without specification as to necessary or permitted parties, subject to judicial appeals by adversely affected persons, counties, or municipalities.^{5/} The PSC also has broad regulatory powers with respect to public utilities, including the issuance of certificates of authorization, and the regulation of service areas. These powers are discussed in Chapter Two.

The DNR is responsible for reviewing engineering plans for facilities proposed for specific sites, and for

issuing air, water, solid waste, and other environmental permits for facilities subject to the siting statute.^{6/} The DNR is directed and supervised by the Natural Resources Board. The Board consists of seven members appointed to staggered six-year terms. At least three members are to be from south and at least three are to be from north of a line running east and west through the city of Stevens Point.^{7/}

II. SCOPE OF SITING JURISDICTION OF PSC AND DNR

Under an amendment to the Wisconsin statutes providing for the regulation of public utilities, the PSC and DNR are assigned the responsibility for approving construction of "facilities,"^{8/} which are defined as bulk electric generating facilities, large electric generating facilities and high-voltage transmission lines.^{9/} Bulk electric generating facility means "electric generating equipment and associated facilities designed for nominal operation at a capacity of 300,000 kilowatts or more."^{10/} Large electric generating facility is similarly defined, except having a capacity between 12,000 and 300,000 kilowatts.^{11/} High-voltage transmission line means "a conductor of electric energy exceeding one mile in length designed for operation at a nominal voltage of 100 kilovolts or more, together with associated facilities."^{12/}

The term "public utility" is defined as:

[E]very corporation, company, individual ... and every sanitary district, town, village or city that may own, operate, manage or control ... any

plant or equipment or any part of a plant or equipment, within the state for ... the production, transmission, delivery or furnishing of heat, light, water or power either directly or indirectly to or for the public." No ... cooperative association organized ... for the purpose of producing or furnishing heat, light, power or water to its members only shall be deemed a public utility under this definition. Public utility includes any person engaged in the transmission or delivery of natural gas for compensation within this state by means of pipes or mains.^{13/}

Before any person may commence construction of any bulk electric generating facility, large electric generating facility or high-voltage transmission line, a certificate of public convenience and necessity must be obtained from the PSC.^{14/}

"Persons" subject to this requirement are not defined by the statute. "Commencement of construction" is defined as "site clearing, excavation, placement of facilities or any other substantial action adversely affecting the natural environment of the site."^{15/} However, borings to obtain information related to site or environmental suitability are not prohibited.^{16/}

The DNR's role in the certification process is to review engineering plans for bulk and large electric generating facilities and to issue air, water and solid waste pollution permits.^{17/} The DNR also designates which permits must be obtained prior to the PSC's certificate. Such designation is on the basis of whether the issuance or denial of the permit could "significantly affect the overall facility design or location."^{18/} With respect to proposals by electric utilities

as defined above, the PSC also approves ten-year plans to be updated every two years.^{19/} An "electric utility" is defined as:

[A]ny public utility, as defined in §196.01, which is involved in the generation, distribution and sale of electric energy, and any corporation, company, individual or association, and any cooperative association organized under Chapter 185 for the purpose of generating, distributing or furnishing electric energy at retail or wholesale to its members only, which owns or operates, or plans within the next 10 years to construct, own or operate, bulk electric generating facilities, large electric generating facilities or high-voltage transmission lines in the state.^{20/}

The term "public utility" is defined and discussed in Part II of this Chapter, above.

In approving ten-year plans, the PSC is to consider reports by the Department of Administration, Business, Development, Health and Social Sciences, Justice, Local Affairs and Development, Natural Resources and Transportation.^{21/} In addition, any county, municipality, town or person may submit written comments on any plans within 180 days after the plan is filed.^{22/} In granting certificates of public convenience and necessity on the other hand, the PSC is not required to consult other agencies, although separate permits must be obtained from the DNR. Although in granting certificates the PSC is required to find that the proposed facility will not unreasonably interfere with the "orderly land use and development plans for the area involved,"^{23/} other provisions expressly preempt local

ordinances both with respect to the approval of the ten-year plans, and the certification of specific sites.^{24/} The standards employed by the PSC in approving ten-year plans and sites are discussed in Part IV below.

The PSC^{25/} is authorized to promulgate rules and regulations. The rules promulgated thus far are similar to the statutory provisions, but are slightly more specific and provide more procedural detail.^{26/}

There is a grandfather clause exemption from the siting amendment if application was made for construction of a facility under the public utilities regulation statute prior to the enactment of the comprehensive siting amendment in 1975.^{27/} This exemption was applied in Falkner v. Northern States Power Co.^{28/} The court held that the new siting statute, which requires a proposed facility site to be certified by the PSC before a utility may exercise the power of eminent domain with respect to the proposed site, did not apply to a facility site for which an application for certification was made under the prior statute.

III. CERTIFICATION PROCESS

The certification for a particular proposed site under the siting statute entails the submission of a detailed application to, and the issuance of a certificate of public convenience and necessity by, the PSC. An engineering plan

must be submitted to the DNR, and applications for air, water and solid waste pollution permits must be submitted to the DNR if determined necessary in the light of the engineering plan submitted.^{29/} A separate statute provides optional procedures which eliminates the requirement of obtaining multiple permits from the DNR for facilities proposed to be located adjacent to certain waterways. Under those procedures, the DNR reviews the engineering plans and any other information it decides to request.^{30/}

An applicant for a proposed site is required by statute to file an application with the PSC containing such information as is required by PSC rules.^{31/} The application must be filed not less than 18 months prior to the commencement of construction of a bulk electric generating facility, and not less than 6 months prior to the commencement of construction of a large electric generating facility or a high-voltage transmission line.^{32/} Within 10 days after filing the application, the PSC must send a copy of the application to the clerk of each municipality and town in which the proposed facility is to be located and to the main library of each such county.^{33/} The PSC holds a public hearing (see Chapter 2, Part V) pursuant to notice at least 30 days prior to the hearing.^{34/}

IV. CERTIFICATION STANDARDS

The application for a certificate of public convenience and necessity will be approved if the PSC determines

that the proposed facility is in substantial compliance with the most recent ten-year plan filed and approved except the commission may waive this requirement for large electric generating facilities or high-voltage transmission lines if it finds that the need for the facilities or lines could not have been reasonably foreseen by the utility at the time of the filing of its most recent ten-year plan approved by the commission. The criteria for approving the ten-year plan are that the plan will provide for a reasonably adequate supply of electrical energy to meet the needs of the public during the planning period; that the plan is in the public interest when considering engineering, economic, health, safety, reliability, efficiency and environmental factors and alternate methods of generation or sources of supply; that it is reasonably coordinated with long-term plans and policies of other agencies or that a reasonable effort has been made to coordinate with such plans and policies; and that the plan provides for programs which discourage inefficient and excessive power use.

Additionally, the PSC, prior to application approval, must find that the proposed facility is necessary to satisfy the reasonable needs of the public for an adequate supply of energy; the design and location or route is in the public interest considering alternative sources of supply, alternative locations or routes, individual hardships, engineering, economic safety, reliability and environmental factors; the proposed

facility will not have undue adverse impact on other environmental values such as, but not limited to, ecological balance, public health and welfare, historic sites, geological sites, geological formations, the aesthetics of land and water and recreational use; and that the proposed facility complies with the criteria under §196.49(4) if the application is by a public utility as defined in §196.01. The provision mentioned last incorporates by reference a portion of an earlier statute providing general regulatory and certifying powers to the PSC over public utilities. That statute was not repealed by the siting act, but was superseded to the extent it is inconsistent with the siting act.^{35/} The criteria referred to are that the proposed facility will not substantially impair the efficiency of the service of the utility, nor provide facilities in excess of probable future needs, nor add to cost of service without producing an increase in value or quantity of service. Finally, prior to application approval, the PSC must determine that the proposed facilities will not unreasonably interfere with the orderly land use and development plans for the area involved.^{36/} Rehearing and appeals of PSC decisions are discussed in Chapter 2, Part V. The siting statute does not specify any procedures for appealing or reviewing DNR decisions.

V. PLANNING AND LOCATION OF DEVELOPMENTS GENERALLY

For energy facilities not meeting the definitions of a bulk or large electric generating facility, or high-voltage

transmission line, no certificate of public convenience and necessity is required under the siting statute. However, if the facility is proposed by a "public utility," a certificate will be required from the PSC under separate public utility statutes, discussed in Chapter 2. In addition, the siting of a facility not subject to the siting act will be required to comply with local ordinances. Applicable state pollution permits are required whether or not the siting statute applies, as noted.

Counties have general zoning powers, without any provisions dealing specifically with public utilities or energy facilities. Counties may also adopt "development plans," which may include "public and private utilities including water, light, heat ... and pipelines and other services ... but these plans are only to serve as a guide for future development, and are not enforceable. Cities and towns also have general zoning powers. Cities may, with the consent of the owners, establish "planned development districts," which may provide for, among other things, the "economic design and location of public and private utilities...." In such districts, the regulations need not be uniform.

DNR is the principal state pollution agency, issuing permits with respect to air, water, and solid waste management, as discussed above.

FOOTNOTES

1. See Chapter 2 for a detailed discussion of the make-up and responsibilities of the PSC as they relate to public utilities.
2. Wis. Stat. Ann. §196.491 (West Supp. 1980).
3. Id. §196.491(2).
4. Id. §196.491(3)(b).
5. Id. §196.491(3)(j).
6. Id. §196.491(2m).
7. Id. §15.34.
8. Id. §196.491(2m).
9. Id. §196.491(1)(e).
10. Id. §196.491(1)(a).
11. Id. §196.491(1)(g).
12. Id. §196.491(f).
13. Id. §196.01(1).
14. Id. §196.491(3).
15. Id. §196.491(1)(b).
16. Ibid.
17. Id. §196.491(2m).
18. Ibid.
19. Id. §196.491(2)(a).
20. Id. §196.491(1)(d).
21. Id. §196.491(2)(a)(8)(b).
22. Id. §196.491(2)(e).

23. Id. §196.491(3)(d)(6).
24. Id. §196.491(2)(a)(8).
25. Id. §196.02(3).
26. Wis. Adm. Code Chs. PSC 111 and NR 170.
27. 1975 Wis. Laws Chs. 68 §11; In Re Wisconsin Electric Power Co., Doc. No. A-5489 (Aug. 18, 1977).
28. Falkner v. Northern States Power Co., 75 Wis. 2d 116, 248 N.W.2d 885 (1977).
29. Wis. Stat. Ann. §196.491(2m) (West Supp. 1980).
30. Id. §30.025.
31. Id. §196.491(3)(a).
32. Ibid.
33. Ibid.
34. Id. §196.491(3)(b).
35. See, Falkner v. Northern States Power Co., 248 N.W.2d 585 (Wis. 1977).
36. Wis. Stat. Ann. §196.491(d)(5) (West Supp. 1980).

CHAPTER 4

LAW GOVERNING FRANCHISES IN WISCONSIN

I. AUTHORITY TO GRANT FRANCHISES

A. Express Authority to Grant Franchises

The Wisconsin statutes provide the express authority to grant franchises:

Any domestic corporation organized to furnish telegraph, telephone, service or transmit heat, power or electric current to the public or for public purposes, and any co-operative association organized under chapter 185 to furnish telegraph, telephone or transmit heat, power or electric current to its members, may, subject to 5.86.16 and to reasonable regulations made by any city or village through which its transmission lines or systems may pass, construct and maintain such lines or systems with all necessary appurtenances in, across or beneath any public highway or bridge or any stream or body of water. 1/

* * * *

No lighting or heating corporation shall have any right hereunder in any city or village until it has obtained a franchise or written consent for the erection or installation of its lines from such city or village. 2/

Another statute provides:

Any city or village may grant to any person or corporation the right to construct and operate therein a system of waterworks or to furnish light, heat or power subject to such reasonable rules and regulations as the proper municipal authorities by ordinance may from time to time prescribe. 3/

The above statutes have survived in the same basic form since 1880 with the exception of the first statute listed, which was passed in 1907. A wealth of litigation has provided detailed interpretation of the statutes.

The statutes have been interpreted by the courts as prescribing a process whereby a utility obtains a franchise directly from the state legislature, merely by being organized as a utility. The municipality has the power to regulate the use of the streets and public grounds and prevent their encumbrance, but this only extends as far as its police power, which has been limited by the courts.^{4/} In State, ex rel. The Wisconsin Telephone Co. v. Sheboygan,^{5/} the court held that a municipality has no right to unreasonably exclude a telephone company from the city when it has already been granted a franchise by the state. It has also been held that the only franchise needed is from the state, and a municipality has no right to grant a franchise in return for free phone service and cannot bargain away its police power or exact for itself financial benefits as a condition for the exercise of the franchise.^{6/} Judicial decisions have held that a municipality cannot grant a franchise in return for free electricity.^{7/} Now can a municipality require a utility to pay "a sum equal to the balance due on any special assessment levied against the abutting real estate for the street pavement or resurfacing," as a condition to obtaining a permit to open the streets to install underground equipment, as such a sum bears no relationship to the actual costs to the

municipality incident to allowing the opening of the street.^{8/} Establishing schedules for rates and rebates and raising of revenue by requiring the franchisee to pay a portion of its earnings to a municipality are also beyond the police power of the municipality.^{9/}

Held to be within the police power is the restoration of the streets,^{10/} the prohibition of overhead telephone wires in certain parts of the municipality if reasonable^{11/} and the removal of tracks upon abandonment.^{12/}

In 1907, Section 182.017(7), requiring consent from the municipality before any rights come into existence, was added to the Wisconsin Statutes.^{13/} However, Wisconsin courts, after this statute's enactment, continued to treat franchises as stemming from the state with the municipality only exercising its limited police power over the use of the streets by a utility.

B. Implied Authority to Grant Franchises

No power to grant franchises is given to municipalities unless explicitly stated in the statutes or in the municipality's charter. In National Foundry and Pipe Works v. Oconto Water Co.,^{15/} it was held that a municipality could not grant a franchise for a water works as the power was not granted by the legislature when approving the city's charter. However, in Andrews v. National Foundry and Pipe Works, since the municipality's charter expressly gave the municipality power to provide for the erection of water works, the court determined that the

municipality could grant a franchise to erect water works.^{16/}

Municipalities have been granted home rule by the Wisconsin Constitution.^{17/} No cases interpreting this grant in relation to franchises has arisen.

II. PROCEDURES FOR GRANTING FRANCHISES

The statutes and cases do not provide a detailed procedure for franchising. Payments to the local government are optional with each local government. As previously mentioned, however, a municipality may not use such payments to raise revenue. The state legislature does have the authority to tax franchises to raise revenue.^{18/}

In commission and city forms of municipal government, a majority vote is necessary to adopt any ordinance.^{19/} The statutes further provide that in such cities, the ayes and nays be called and recorded upon every vote, and that no vote can be taken except upon a motion, resolution, or ordinance, reduced to writing.^{20/} General charter law respecting municipalities requires that all ordinances be published in the official city newspaper within 15 days of passage, and shall not be in effect until so published.^{21/} In villages, all ordinances must be signed by the president and countersigned by the clerk. Only ordinances imposing penalties or forfeiture are required to be published.^{22/}

A referendum is optional with the municipality unless a petition for a referendum is presented within 60 days after an ordinance granting a franchise has been passed. Such petition

must be signed by the number of electors which equals 20 per cent of those voting at the last regular municipal election. If such petition is presented, then a referendum is mandatory and is held at the next regular election or at a special election within 90 days of the filing of the demand.

III. CRITERIA USED IN EVALUATING A FRANCHISE REQUEST

As previously mentioned in Chapter 2, a certificate of public convenience and necessity from the Public Service Commission (PSC) is required prior to the grant of any license, permit or franchise to operate, manage or control any plant or equipment of a public utility if another public utility is already engaged in a similar service in the same area.^{24/}

Additionally, a public utility cannot commence construction or render service in any municipality in which it was not performing that service on August 1, 1931, even if it was the only public utility performing that service, without a certificate from the PSC authorizing it to transact such utility service.^{25/}

The courts have held that additional criteria and conditions for granting and using the franchise are to be determined by the municipality as long as the criteria and conditions are reasonable.^{26/} For example, a municipality may prohibit overhead telephone wires in certain parts of the city if it is reasonable to require them to be underground.^{27/}

IV. CHARACTERISTICS OF A FRANCHISE

A. Duration and Termination

The Wisconsin statutes provide that all licenses, permits or franchises granted after July 11, 1907, have the effect of indeterminate permits.^{28/} "Indeterminate permit" is defined as:

Every grant, directly or indirectly, from the state to any public utility of power, right or privilege to own, operate, manage or control any plant or equipment or any part of a plant or equipment within this state for the production, transmission, delivery or furnishing of any public utility service and such permit shall continue in force until the municipality shall exercise its option to purchase, or until it shall be otherwise terminated according to law. ^{29/}

An "indeterminate permit" is different from a traditional franchise. A utility which operates under an indeterminate permit agrees to submit to full control of the PSC and to the right of the municipality to acquire the utility. In exchange, the utility receives an exclusive, perpetual franchise with no need to periodically apply for new permits.^{30/}

All franchises, as indeterminate permits, continue in operation until the municipality exercises its rights to purchase the utility.^{31/} The utility, by accepting an indeterminate permit, consents to the future purchase of the plant by the municipality.^{32/} The terms of the purchase must be approved by the PSC after a public hearing.^{33/} The order of the Commission regarding the purchase terms is reviewable by appeal.^{34/} If the franchisee fails in performing the conditions of the franchise

it is terminated.^{35/}

If the PSC should determine that any line has been abandoned or discontinued, the utility is required to remove the line.^{36/}

B. Exclusivity

Before any utility may provide service in an area already served by another utility, it must obtain a declaration by the PSC that the public convenience and necessity require a second public utility.^{37/}

The courts have ruled that all grants of right or privilege to own, operate, manage or control any plant or equipment providing utility services shall be construed to be indeterminate permits, which are perpetual, exclusive franchises. No other utility generally will be allowed to compete with the franchised utility.^{38/} However, this exclusivity is qualified and not absolute. The PSC may require extension and duplication of lines if public convenience and necessity require.^{39/} In common carrier cases the courts have held that the PSC can allow competition if it is for the benefit of the traveling public.^{40/}

C. Franchise Tax

A tax may be imposed by the city to pay for the burden on the city of allowing the utility to use the streets. As mentioned, however, the city cannot impose a franchise tax to raise revenue.^{41/}

D. Abandonment

The removal of abandoned lines can be required by the PSC.^{42/} However, the removal of abandoned street railway tracks has been held to be outside the jurisdiction of the PSC, but within the police power of the municipality.^{43/}

E. Other Characteristics

No written acceptance of the franchise is required of the franchisee. Use of the franchise constitutes an acceptance and creates a contractual obligation.^{44/}

A municipality has only such regulatory powers over public utilities as may be derived from its police power and cannot preclude entirely the operation of a utility within municipal boundaries.^{45/}

FOOTNOTES

1. Wis. Stat. Ann. §182.017(1) (West Supp. 1980) (emphasis added).
2. Id. §182.017(7) (West 1957).
3. Id. §66.061(1)(a) (West 1965).
4. Allen v. Clausen, 114 Wis. 244, 90 N.W. 181 (1902).
5. State ex rel. Wis. Tel. Co. v. Sheboygan, 111 Wis. 23, 86 N.W. 657 (1901).
6. Kenosha v. Kenosha Home Tel. Co., 142 Wis. 338, 135 N.W. 848 (1912).
7. Milwaukee Elec. Ry. & Light Co. v. City of Milwaukee, 173 Wis. 329, 181 N.W. 298 (1921).
8. Wisconsin Tel. Co. v. Milwaukee, 223 Wis. 251, 270 N.W. 336 (1936).
9. State v. Milwaukee Independent Tel. Co. 133 Wis. 588, 114 N.W. 108 (1907).
10. Wisconsin Tel. Co. v. City of Milwaukee, 223 Wis. 251, 270 N.W. 336 (1936).
11. Marshfield v. Wis. Tel. Co., 102 Wis. 604, 78 N.W. 735 (1899).
12. In re Madison Ry. Co., 102 F.2d 178 (1939).
13. 1907 Wis. Laws ch. 165.
14. See, e.g., cases cited at notes 6, 7 and 8, supra.
15. National Foundry & Pipe Works v. Oconto Water Co., 52 F. 29 (1892).
16. Andrews v. National Foundry & Pipe Works, 61 F. 782 (1894).
17. Wis. Const. art. 11, §13.
18. City of LaCrosse v. LaCrosse Gas & Elec.Co., 145 Wis. 408, 130 N.W. 530 (1911).
19. Wis. Stat. Ann. §64.07(3) (West 1957).

20. Id. §§64.29(4) (West Supp. 1980), 64.07(4) (West 1957).
21. Id. §62.11(4) (a) (West Supp. 1980).
22. Id. §61.50(1).
23. Id. §§66.061(1) (b-c) (West 1965).
24. Id. §196.50(1) (West Supp. 1980).
25. Id. §196.49(1) (West 1957).
26. Linden Land Co. v. Milwaukee Elec. Ry. & Lighting Co., 107 Wis. 493, 83 N.W. 851 (1900).
27. Marshfield v. Wis. Tel. Co., 102 Wis. 604, 78 N.W. 735 (1899).
28. Wis. Stat. Ann. §196.54 (West 1957).
29. Id. §196.01(5).
30. Galumet Services Co. v. City of Chilton, 148 Wis. 334, 135 N.W. 131 (1912); Wisconsin Pub. Serv. Corp. v. Pub. Serv. Comm'n, 230 Wis. 663, 284 N.W. 582 (1939).
31. Wis. Stat. Ann. §196.01(5) (West 1957).
32. Id. §197.03
33. Id. §197.05 (West Supp. 1980).
34. Id. §197.06 (West 1957).
35. State v. Portage City Water Co., 107 Wis. 441, 83 N.W. 697 (1900).
36. Wis. Stat. Ann. §182.017(3) (West 1957).
37. Id. §196.50(1) (West Supp. 1980).
38. Galumet Services Co. v. City of Chilton, 148 Wis. 334, 135 N.W. 131 (1912).
39. Lodi Tel. Co. v. Pub. Serv. Comm'n, 262 Wis. 416, 55 N.W.2d 379 (1952), aff'd, 262 Wis. 416 (1953).
40. Chicago & Milwaukee Elec. R.R. Co. v. Pub. Serv. Comm'n, 254 Wis. 551, 37 N.W.2d 42 (1949).

41. Wisconsin Tel. Co. v. Milwaukee, 126 Wis. 1, 104 N.W. 1009 (1905); State v. Milwaukee Independent Tel. Co., 133 Wis. 588, 114 N.W. 108, (1907); City of LaCrosse Gas & Elec. Co., 145 Wis. 408, 130 N.W. 530 (1911); Milwaukee v. Milwaukee Suburban Transp. Corp., 6 Wis.2d 299, 94 N.W.2d 584 (1959).
42. Wis. Stat. Ann. §182.017(3) (West 1957).
43. In re Madison Rys., 102 F.2d 178 (7th Cir. 1939).
44. City of Superior v. Douglas County Tel. Co., 141 Wis. 363, 122 N.W. 1023 (1909).
45. See Section I.

CHAPTER 5

RATE REGULATION IN WISCONSIN

I. RATEMAKING AUTHORITY

The Wisconsin Public Service Commission (PSC) has jurisdiction to regulate the rates charged by investor-owned and municipally-owned public utilities. Each utility is required to file with the PSC schedules showing all rates and charges for services provided by the utility.^{1/} Proposals to make any changes in rate schedules must be filed with the PSC. No change in a rate schedule which constitutes an increase in rates to consumers can be made except by order of the PSC after an investigation and hearing.^{2/} A change in rates constituting a decrease can take effect at the time specified in the changed rate schedule (but not less than 10 days after the date of filing) unless the proposed change is disapproved by the PSC. The PSC can suspend the effectiveness of such a revised schedule for up to 4 months before approving or disapproving the schedule.^{3/}

Investor-owned as well as municipally owned utilities are included within the definition of a public utility under the statute and are subject to PSC rate jurisdiction.^{4/} Heat, light, water and power cooperatives are not included within the definition of a public utility and thus are not subject to PSC rate jurisdiction.^{5/}

Copies of all new schedules are to be filed in every office of the utility where payments can be made by

customers ten days prior to the time the new rates are to take effect.^{6/}

The PSC is authorized by statute to prescribe a system of uniform accounts to be kept by every public utility.^{7/} The system of accounts promulgated by the National Association of Regulatory Utility Commissioners has been prescribed by the PSC for use by electric and gas utilities.^{8/}

The courts have held that depreciation is a necessary and proper element of the cost of each utility's service.^{9/} Every public utility is required to file its estimate of the average annual rate of depreciation required for each of its classes of fixed capital used for public utility purposes.^{10/} The PSC is to review the depreciation rates and either approve them or certify the percentages which it considers reasonable and proper.^{11/}

II. RATE BASE DETERMINATION

A. Test Period

In recently reported decisions of the PSC, the test period and method utilized for valuing rate base are generally not contested issues. The PSC permits the use of a wholly estimated projected test period.^{12/} Further, although one company's initial request for rate relief was based on an estimated 1977 test year, the PSC permitted the company to revise its request based on an estimated 1978 test year when it became apparent that the rates would not be effective in 1977.^{13/}

B. Rate Base Valuation

The PSC employs a depreciated original cost rate base, which is generally an average rate base for the test period selected. In the only reported decision in which a utility proposed the use of year-end figures, the PSC found

that in determining operating results at existing rates, the correct method is to relate operating expenses for the test period to a net investment rate base Accordingly, use of an average of net investment rate base for the test period is reasonable and just for the purpose of this proceeding. 14/

C. Rate Base Components and Adjustments

The PSC has observed that "(t)he Uniform System of Accounts of Classes A and B utilities provides that utility plant in service shall include the original cost of utility plant, used by the utility in rendering utility services."^{15/}

Thus, the PSC excluded from the utility's rate base, surplus land which was not presently being used and which the company had no plans for placing in service for a couple of years. Similarly, the cost of a building, constructed for use by utility personnel for training purposes and also for use by the public as a meeting place, has been excluded from a utility's rate base.^{16/}

However, in another electric utility rate case, although the net book cost of several nonproducing hydro-generating facilities was excluded from rate base, the PSC allowed the amortization of such costs in operating expenses so that the cost of the retired property would be recovered.^{17/} Similarly, the PSC has also held that the expenses associated

with the aborted conversion from coal to oil represented "facilities," not usable in providing utility service and should not be included in the rate base, but it allowed amortization of the expense over a reasonable period and inclusion of it in the utility's operating costs.^{18/}

The PSC's standard treatment for construction work in progress (CWIP) is not to capitalize an allowance for funds used during construction (AFUDC) when CWIP is less than 10% of the net investment rate base. Rather, an adjustment is made in the rate of return which permits the utility to earn a return, equal to the cost of capital, on that portion of CWIP which is less than 10 percent of the average net investment rate base. AFUDC is capitalized on major production and transmission projects when the ratio of CWIP to net investment rate base exceeds 10 percent on a weighted annual average. The rationale for recognizing a portion of CWIP in current rates is expressed as follows:

The Commission recognizes that some construction is necessitated by today's ratepayer and that utilities must have earnings of high quality in the era of money market skepticism of AFUDC earnings. Allowing for the recovery in current rates of return on a portion of construction work in progress is authorized herein as just and reasonable and in the public interest. ^{19/}

Recent PSC decisions have not discussed the treatment of research and development or initial organization and start up costs as rate base items.

D. Rate Base Allocation

The PSC has considered the allocation of plant

investment, as well as operating costs, between electric and steam heating utility operations.^{20/} In previous Commission decisions, the PSC had authorized Wisconsin Electric Power Company (WEPCo) to install two complete electric generating and steam heating units in the central Milwaukee area in order to provide more reliable service and to meet the need for an additional steam load. In a subsequent rate case WEPCo allocated and proposed continued allocation of plant investment of the steam heating operations of the utility on an "incremental cost basis."

Under this procedure applicant made a determination of the additional or incremental investment that was required to supply the heating utility with steam output from this unit on the basis that the plant was constructed primarily for electrical generating purposes. ^{21/}

The intervenor, Wisconsin Gas Co., proposed allocating plant investment on a "use of facilities method." The facts of the case as reported gave no indication as to how the "use of facilities method" differed from the "incremental cost method." However, the latter method allocated a much smaller portion of the units' costs to the steam heating operations. The PSC approved by the "incremental cost method" of allocation since the plant was constructed primarily for electric generating purposes.

III. COST OF SERVICE

A. Allowable Expenses

While not explicitly enunciated as such, the

general test in Wisconsin for determining what expenses will be allowed for rate-making purposes appears to be whether the expenses recorded pursuant to the uniform system of accounts are reasonable in amount and reasonably related to the efficient rendition of utility service.^{22/}

The center of controversy over what is includible in a utility's cost of service for rate-making purposes has been advertising expenses. PSC decisions concerning advertising reflect a policy of encouraging conservation and economic efficiency. Thus the PSC has included the cost of advertising directed at instructing customers as to the means of most effectively instituting and terminating service as well as ways and means of conserving energy.^{23/} However, the PSC chose not to include the cost of institutional advertising relating to youth and drugs, teachers and education, industry and the environment in relation to the company's responsibility of furnishing adequate service, concluding that "(i)nclusion of expenditures for such advertising at this time of increasing costs of providing utility service is questionable."^{24/} In Wisconsin the utility is held responsible for confining institutional advertising to the distribution of factual information concerning present and prospective operations and the existence and solution of problems associated with rendering service at reasonable rates.^{25/}

In the only reported decision which considered the propriety of including charitable contributions in the cost

of service, the PSC held that such expenses should be excluded because the company received the benefit of an income tax deduction for such costs.^{26/}

The PSC has indicated its receptiveness to the recovery of research and development expenses by including expenses which represented a utility's participation in a ten-year nationwide program of developing nuclear-fueled breeder reactors.^{27/} The PSC concluded that such expenditures were reasonable and just in view of the main objectives of the program which were "to (a) conserve and extend fuel resources and (b) reduce long-term fuel costs."^{28/}

B. Allocation of Joint Expenses

In the only reported decision which indicates acceptance of a particular method of allocating costs, the PSC was presented with the issue of the proper allocation of operating costs, as well as rate base between a company's steam heating and electric generating operations. As mentioned above, the PSC approved of the company's use of an "incremental cost basis" method to allocate both operating costs and rate base.^{29/}

The only discussion of cost allocation between various customer classifications was found in Re Madison Gas & Elec. Co.,^{30/} in which the PSC noted that the staff used "the coincident peak demand method (peak responsibility method) for allocating the production and transmission costs and customer class noncoincident demand as the allocation

basis for the distribution demand-related costs." ^{31/}

None of the cases discuss the allocation of expenses to power pool operations or the method for determining charges for energy interchanges with other utilities.

IV. FEDERAL INCOME TAX ISSUES

No recently reported PSC decision has dealt with the treatment of depreciation or investment tax credits for federal income tax purposes. However, according to one source,

The Commission requires normalization of investment tax credits and job development credits, in accordance with current IRS regulations. The utilities are also required to normalize the tax effects of accelerated depreciation methods allowed for income tax purposes. The normalization of the tax benefits of liberalized depreciation is somewhat different in Wisconsin than in other states. Deferred taxes are not recorded; instead, an amount equal to the tax reduction resulting from liberalized depreciation method is recorded as an additional depreciation expense. ^{32/}

V. METHODS OF DETERMINING RETURN TO BE ALLOWED A REGULATED UTILITY

A. Return on Equity

The PSC has not adopted any single method for arriving at a reasonable return on equity. A review of recently reported decisions indicates that the PSC will evaluate a company's return on equity using, among other things, earnings-price ratios, discounted cash flow, interest coverage ratios and the overall trend in the financial markets to determine if the company should be granted an

increase in return on equity. Using these methods, the PSC in Re Madison Gas & Electric Co.,^{33/} concluded that the company should be granted an increase in its allowable return on equity from 12 to 13 percent because the company's earnings-net proceeds ratio was too high, the market price of common equity was well below book value, the interest coverage was below that which was required to issue new first mortgage bonds under the company's bond indenture and its recent experience in attracting capital at favorable rates had been "dismal".^{34/} However, although the company and staff agreed that a 14 to 15 percent return on equity would be reasonable, the PSC authorized a 13 percent return because the overall trend in the financial markets "had somewhat eased."^{35/}

The table in Appendix A lists overall return and the return on common equity which have been allowed in recent rate cases.

B. Risk Factors

Although the PSC has not enumerated risk or other factors which may justify the grant of a higher than normal return, the PSC considers risk, as well as other factors, in determining the rate of return to be granted a regulated utility. Thus the PSC has denied as high a rate of return on equity as requested by a gas company, because the company's ability to adjust rates via purchased gas adjustment clauses reduced the risk to investors.^{36/} In a rate case brought by

a telephone company, the PSC pointed to several differentials in risk between electric and gas utilities and the telephone utility industry, and concluded that telephone utilities should generally be granted a lower rate of return on equity than is normally allowed gas and electric utilities.^{37/}

Those differences included: the fact that the telephone industry is continually expanding, whereas gas and electric industries are promoting conservation; that environmental pressures bear more heavily on gas and electric utilities; due to the increase in cost of fuel, inflation is more severe for electric and gas utilities; and the telephone industry relies more heavily on equity financing than other utilities.^{38/} The PSC concluded that a 15 per cent rate on equity on gas operations was excessive in the grounds that: "(1) applicant has an equity ratio of 58 per cent; (2) the dividend pay-out ratio is abnormally low for a public utility; (3) the need to attract additional capital is speculative at this time; (4) depreciation rates are adequate to recover the original investment, thereby reducing risk to the investor."^{39/}

It should be noted that the PSC's practice of adding an attrition allowance to the revenue requirements of a company may actually result in a higher return than that specified by the PSC. Thus, a dissent in one case suggested that although the Commission fixed the rate of return at 12 per cent, ". . . the effective rate of return - due to the

particular amount of the attrition allowance included -
is nearly 14 per cent."^{40/}

Although recently the PSC has not made allowances in rate of return to provide an incentive or penalty to utilities which take particular actions, the Chairman of the PSC issued a concurring opinion in a recent electric utility case stating that he believed that an appropriate range for return on equity was 12% to 13.5% for gas and electric utilities, and that under his approach any utility that tended to frustrate the PSC in implementing a new rate structure would be less likely to receive a return on equity in the higher end of the range.^{41/}

The PSC does apply double leverage in determining the cost of equity:

In considering the cost of common stock capital of applicant, the commission must properly look to the source of such capital and cost incurred by the parent company in securing funds for investment in the common stock of applicant. Such procedure is common practice and has regularly been followed in other cases before this commission involving Wisconsin Public Utilities whose stock is entirely owned by holding company systems or other public utilities.^{42/}

VI. RATE DESIGN CRITERIA

According to the PSC:

Rate design is essentially an exercise in opinion and judgment in which the commission is bound by statutory requirement to be nondiscriminatory, just, and reasonable. The commission has consistently followed certain rate design guidelines and principles which have developed over time and are widely used. However, criteria for sound and desirable rate structure are difficult to apply

precisely. The art and science of formulating rate structure requires a judgmental weighing of the various design criteria.

Rate design criteria include:

- (1) Cost-based rates.
- (2) Discouraging wasteful and inefficient use (conservation).
- (3) Simplicity and ease of understanding.
- (4) Freedom from interpretation controversy.
- (5) Yielding the revenue requirement.
- (6) Revenue stability from year to year.
- (7) Historic rate - structure continuity.
- (8) Fair apportionment of the cost of service.
- (9) Avoidance of discrimination. 43/

In addition to the above criteria, the PSC noted that the "economic, environmental, social and physical impacts of rate design," may be taken into consideration in setting rates. 44/ Thus the PSC concluded that certain residential all-electric rates proposed to be eliminated by the utility would be retained for existing customers because of the "large bill increase" they would experience if such rates were eliminated. 45/

A. Cost of Service Rates

While the PSC has acknowledged the importance of value of service in the design of rates for telephone service, "(c)ost of service has more recently received greater emphasis to promote more equitable rate application among various service classes." 46/ However, in that case the PSC appeared to take value of service into account in setting rates. The PSC concluded that an increase in the popular "optional metropolitan service" should, among other things, establish a better value relationship between the optional

service and other services for which prices were being increased.^{47/}

In the area of electric utility rate-setting, the PSC has made a strong commitment to setting rates based upon the marginal costs of serving additional kilowatts of power and/or energy. "The appropriate bench mark for the design of electric rates" was found to be "marginal cost, as represented by its practical variant, long-run incremental cost."^{48/} In its commitment to marginal cost pricing, the PSC has, at the very least, encouraged the use of time-of-use pricing. The PSC, in a August 15, 1975 notice of rule making, provided that

Any application and evidence submitted by a utility applicant requesting a change in its electric service tariffs shall be considered presumptively deficient if they do not include; . . . a proposal for time-of-day tariffs for those customers having existing metering capabilities or presenting metering capability which can economically be modifiable for time-of-day measurement. Customers in these categories would be primarily those industrial and large commercial classes. ^{49/}

The PSC has authorized mandatory time-of-use tariffs, not only for industrial and commercial customers, but large residential customers as well.^{50/} In addition, the PSC has authorized optional time-of-use rate schedules for customers with demands less than 300 Kwh per month. However, the PSC limited the number of optional time-of-use customers to 300, in view of the potential problems associated with optional time-of-day rate schedules.^{51/}

In its commitment to "marginal cost pricing," the

PSC has ordered various electric utility's to investigate the feasibility of other forms of physical load control and alternative complimentary rates, such as interruptible rates.^{52/} In a Madison Gas & Electric Company case, the PSC authorized a staff proposed interruptible rate schedule for customers with loads in excess of 500 kw.^{53/}

In short, the PSC has made a significant commitment to "marginal cost pricing" of electric rates to promote, among other things, economic efficiency and energy conservation.

B. Specific Forms of Rates

Life-line rates are not presently mandated by statute. Furthermore, the PSC specifically declined to implement life-line rates proposed by one utility.^{54/} The Commission observed that

(t)he principle reason that customers experience difficulty in paying utility bills is due to inadequate income. The problem of inadequate income distribution presently lies beyond the authority of the Commission, as a regulatory agency, and should be addressed effectively by other agencies of government. ^{55/}

C. Cogeneration Rates

The PSC has dealt with the pricing of excess power generated by the cogeneration customers of a utility.^{56/}

Madison Gas & Electric, pursuant to contract, provides a discount and/or payment for electricity generated by its two cogeneration customers, Capitol Heat and the University of Wisconsin. In a recent case, the utility proposed a direct offset to the on- and off-peak energy charges for the

electricity generated by the University of Wisconsin. The utility proposed the same offset for Capitol Heat up to the point at which Capitol Heat generates electricity equal to its own requirements. The utility then proposed to pay an amount per kilowatt hour for electricity generated in excess of Capitol Heat's requirements based on the fuel cost of one of the utility's base load plants.

The PSC concluded that the utility should pay the on-peak and off-peak energy rates provided in its applicable tariff for excess energy generated by Capitol Heat. In addition, the PSC maintained that Capitol Heat should get a demand credit to reflect the utility's savings of future generation capacity costs if Capitol Heat would be able to provide a level of firm generation capacity, stating that "(i)t is appropriate to encourage cogeneration of electricity by customers through proper pricing of energy supplied by these customers."^{57/} The Commission noted that the utility should pursue cogeneration contracts with other customers on this basis.

VII. ISSUANCE OF SECURITIES

No securities are to be issued by any public service corporation until it has first obtained a certificate authorizing such an issue from the PSC.^{58/} The PSC is given very detailed powers over securities.^{59/}

The PSC may not authorize

the issuance of securities for any purposes which are not proper corporate purposes, or in an amount greater than is necessary for such corporate purposes, having in view the immediate requirements of the corporation and its prospective requirements over a reasonable period in the future, and other relevant considerations. 60/

The PSC has held that securities may not be issued for merchandising activities. 61/

Various capital structures have been approved by the PSC. The PSC has allowed a telephone company to issue 4-1/2 percent first year mortgage 2 year notes which resulted in a 46.9% debt ratio with ample revenue to cover annual interest and debt retirement needs. 62/ The PSC has also approved a security issue which created a pro forma debt ratio of 67% and initial interest coverage of only 1.57 times. However, it imposed dividend and salary restrictions to insure improvement in the debt ratio. 63/ In a case where the bond ratio was 61%, the PSC required a reduction in the amount of the bond issue. 64/

APPENDIX A

<u>CASE</u>	<u>ALLOWED % RATE OF RETURN</u>	
	<u>OVERALL</u>	<u>ON COMMON EQUITY</u>
<u>Re Wisconsin Electric Power Co.,</u> D-6630-ER-8 4/21/78	9.85	13.5
D-6630-ER-5 4/26/77	9.45	13.0
<u>Re Northern States Power Co.,</u> 23 P.U.R.4th 326 (1978)	9.88(elec) 8.96(gas)	11.31
<u>Re Wisconsin Telephone Co.,</u> 19 P.U.R.4th 459 (1977)	8.84	11
<u>Re Wisconsin Michigan Power Co.,</u> 15 P.U.R.4th 488 (1976)	8.91(elec) 8.80(gas)	13
<u>Re Wisconsin Natural Gas Co.,</u> 14 P.U.R.4th 518 (1976)	8.49	12
<u>Re Madison Gas & Electric Co.,</u> 17 P.U.R.4th 109 (1976)	9.76	13

FOOTNOTES

1. Wis. Stat. Ann. §196.19(1) (West 1957).
2. Id. §196.20(2).
3. Id. §196.20(1).
4. Id. §196.01(1) (West Supp. 1979).
5. Ibid.
6. Id. §196.21 (West 1957).
7. Wis. Stat. Ann. §196.06 (West Supp. 1980).
8. Mr. Gary Evenson, Records Management Office, PSC, Telephone conversation, 8/4/78. For more detail see Wisc. Adm. Code PSC 110.01 et seq.
9. Milwaukee Elec. Ry. & Light Co. v. City of Milwaukee, 173 Wis. 329, 181 N.W. 298 (1921).
10. Wis. Stat. Ann. §196.09(1) (West 1957).
11. Id. §196.09(2).
12. See, e.g., Re Northern States Power Co., 23 P.U.R.4th 326 (1978), Re Wisconsin Fuel & Light Co., 22 P.U.R.4th 426 (1977).
13. Re Northern States Power Co., 23 P.U.R.4th 326 (1978).
14. Re Wisconsin Elec. Power Co., 92 P.U.R.3d 70, 78 (1971).
15. Re Wisconsin Gas Co., 99 P.U.R.3d 160, 166 (1973).
16. Re Wisconsin Fuel & Light Co., 4 P.U.R.4th 368, 371 (1973).
17. Re Northern States Power Co., 83 P.U.R.3d 176, 180 (1970).
18. Re Lake Superior District Power Co., Decision No. 2-U-7866, Jan. 10, 1978.
19. Re Northern States Power Co., 23 P.U.R.4th 326, 334 (1978).
20. Re Wisconsin Elec. Power Co., 92 P.U.R.3d 70, 74-75 (1971).
21. Id. at 75.
22. Re Wisconsin Elec. Power Co., 9 P.U.R.4th 204, 209-210 (1975).

23. Re Wisconsin Power & Light Co., 4 P.U.R.4th 305, 308 (1974).
24. Id. at 308, 309.
25. Re Wisconsin Elec. Power Co., 9 P.U.R.4th 204, 210 (1975).
26. Re Wisconsin Tel. Co., 19 P.U.R.3d 354 (1957).
27. Re Wisconsin Pub. Serv. Corp., 92 P.U.R.3d 278 (1971).
28. Id. at 283.
29. Re Wisconsin Elec. Power Co., 9 P.U.R.4th 204 (1975).
30. Re Madison Gas & Elec. Co., 17 P.U.R.4th 109 (1976).
31. Id. at 121.
32. Argus Utility Scope Regulatory Services (Wisconsin), April, 1979, p. 10.
33. 17 P.U.R.4th 109 (1976).
34. Id. at 113, 114.
35. Id. at 115.
36. Re Wisconsin Natural Gas Co., 14 P.U.R.4th 518 (1976).
37. Re Wisconsin Tel. Co., 19 P.U.R.4th 459 (1977).
38. Id. at 472, 473.
39. Re Wisconsin Fuel & Light Co., 22 P.U.R.4th 426, 429 (1978).
40. Re Wisconsin Gas Co., 14 P.U.R.4th 518, 530 (1976).
41. Re Wisconsin Elec. Power Co., No. D-6630-ER-8, April 21, 1978 (as cited in Argus Regulatory Service (Wisconsin) April 1979, p. 11).
42. Re Northern States Power Co., 23 P.U.R.4th 326, 332-333 (1978).
43. Re Northern States Power Co., 23 P.U.R.4th 326, 335-336 (1978).
44. Id. at 336.
45. Id. at 337.
46. Re Wisconsin Tel. Co., 19 P.U.R.4th 459, 477 (1977).
47. Id. at 481.

48. Re Madison Gas & Elec. Co., 5 P.U.R.4th 28, 35 (1974).
49. Re Northern States Power Co., 23 P.U.R.4th 326, 336 (1978).
50. Re Wisconsin Elec. Power Co., Decision No. 6630-ER-2, 6630-ER-5, April 4, 1977.
51. Re Madison Gas & Elec. Co., Decision No. 3270-ER-4, 3270-ER-5, Jan. 22, 1979.
52. See, e.g., Re Northern States Power Co., 23 P.U.R.4th 326, 339 (1978).
53. Re Madison Gas & Elec. Co., Decision No. 3270-ER-4, 3270-ER-5, Jan. 22, 1979.
54. Re Madison Gas & Elec. Co., 17 P.U.R.4th 109 (1976).
55. Id. at 124.
56. Re Madison Gas & Elec. Co., Decision No. 3270-ER-4, 3270-ER-5, Jan. 22, 1979.
57. Id. at 10.
58. Wis. Stat. Ann. §184.03 (West 1957).
59. Id. §184.01 et seq. (West 1957 and West Supp. 1980).
60. Id. §184.03(1) (West 1957).
61. Re Wis. Rapids Gas Co., 2-5B-42, October 25, 1933.
62. Re State Long Distance Tel. Co., 2-5B-665, Dec. 3, 1956.
63. Re Stockbridge & Sherwood Tel. Co., 37 P.U.R. 3d 313 (1960).
64. Re Milwaukee Gas Light Co., 87 P.U.R.(n.s.) 337 (1950).

CHAPTER 6

SUMMARY OF IMPEDIMENTS TO IMPLEMENTATION OF ICES

I. Types of Impediments

In order to analyze the extent to which the traditional public utility regulatory system may impede the implementation of ICES, one must first identify what is meant by the word "impediment." For the purposes of this analysis, four broad types of impediments can be identified. The first major category of impediment is the "no-subsidy impediment." This impediment consists of the failure of the government or the regulatory system to provide some desired degree of monetary or other encouragement of ICES. Such subsidies could take the form of grants or tax incentives. On the other hand, a subsidy could result from state public utility regulatory commission (PUC) departure from strictly cost-based rates for purchases and sales of electricity between an ICES and conventional electric utilities, thereby compelling the customers of the electric utility grid to subsidize ICES.

The second major category of impediment is the "uncertainty impediment." The absence of certainty with respect to the manner in which an ICES will be regulated will impose costs that must be borne by the ICES operator. Uncertainty impediments will appear in many forms. ICES will be faced with uncertainty because it represents a new concept which can be

expected to raise issues with which utility regulators are unfamiliar. Such uncertainties will be aggravated as a result of the fact that regulatory jurisdiction in the United States is decentralized. Thus, these uncertainties will have to be resolved largely on a jurisdiction-by-jurisdiction basis. In addition, ICES will necessarily be involved in the sale of excess electrical power to and the purchase of back-up electrical power from conventional electric utilities. These arrangements, however, can be altered by a PUC even though the ICES and utility initially agreed upon the terms. Therefore, ICES will face transactional uncertainties not normally encountered in doing business outside the utility field.

Another major category of impediment is the "discriminatory impediment." This type of impediment takes the form of rules or regulations which, for whatever reasons, affect ICES more harshly than competing energy technologies. These differences in impact may be the result of any number of factors including, but not limited to, ICES size, the type of customers it can be expected to serve and the manner in which it will do business.

The final general category of impediment is the "prohibition impediment." These impediments could be either regulations which impose so substantial a cost on the ICES that it cannot operate economically or regulations which would actually preclude operation of an ICES.

II. Regulatory Impediments to ICES Implementation

The degree and manner in which the existing regulatory system will impede the development of ICES will vary depending on the form of ownership, class of customer and method of doing business chosen by an ICES developer. The ICES type which can be expected to encounter the most serious impediments is the investor-owned ICES seeking to construct a new facility to serve customers in a community already being served by a conventional utility. Such an ICES will face impediments in the form of general PUC regulation, regulations relating to the siting of facilities and the granting of local franchise and regulations concerning rates charged for energy service.

A. General Regulatory Impediments

Public utility regulation probably is more pervasive and complex than any other form of government regulation of business. A businessman not engaged in the utility business may be reluctant to become involved in a business which will subject him to such pervasive governmental regulation. Some examples of areas of regulation which might discourage investors from becoming involved in ICES implementation are the requirement that a regulated utility maintain its books in conformity with a system of accounts prescribed by the PUC and PUC regulation and scrutiny of the financial affairs of the utility. When the ICES is operated in conjunction with a non-utility business, such regulation necessarily will extend beyond the operator's utility operations and involve PUC examination of

its non-utility business. Attempts at minimizing the effects of these types of impediments by setting up a subsidiary corporation to own and operate the ICES could subject the parent company to extensive Securities and Exchange Commission regulation pursuant to the Public Utility Holding Company Act of 1933.

Even if an ICES developer is willing to face the possibility of extensive PUC regulation, it will face a significant uncertainty in determining whether it will be deemed a public utility and therefore subject to PUC regulation. All states require that a utility provide service "to or for the public" before it becomes subject to the jurisdiction of the PUC. Few states, however, have provided any real guidance with respect to the meaning of the phrase "to or for the public." Thus, an ICES operator can expect very little guidance in determining whether its operations will be sufficient to bring it within the classification of "public utility."

Similarly, many states require that a utility "sell" utility service before it will be classified as a public utility. Again, statutes, administrative rules and caselaw provide very little guidance with respect to when a transaction will be classified as a "sale." Thus, the ICES operator must face another significant area of uncertainty with respect to PUC regulation of its operations.

Assuming that some aspects of the ICES operations will bring it within the classification of public utility, a

serious question remains with respect to whether sales of both of the ICES energy streams will be subject to PUC regulation and, if not, whether and by whom the non-PUC regulated energy stream will be regulated. This uncertainty arises because many state statutory schemes provide for the regulation of only certain enumerated utility services such as heat, electricity and gas. In such states, the provisions of refrigeration or motive power may not be within PUC jurisdiction. Regardless of whether these energy streams will be regulated by local governments, or left unregulated, such split regulation may raise significant problems with respect to the marketing of both energy streams at competitive rates.

State territorial assignment programs could present an impediment capable of precluding operation by ICES. Several states have enacted legislation which specifically provides that the PUC is to divide the state into a finite number of service areas and assign each of these service areas exclusively to a particular utility. Where such programs exist, service area assignments have been made and, generally, these programs make no provision for the assignment of service areas to new utilities unless there is some indication that customers are not being adequately served. Even where no specific statutory allocation scheme exists, PUCs generally have sought in granting certificates of public convenience and necessity to avoid what they viewed as wasteful duplication of facilities by granting the first utility serving a given area in effect an exclusive

right to serve that area so long as the utility provides adequate service. Thus, in many cases, an ICES may find that it is precluded from initiating operations as a result of these territorial assignment programs.

B. Siting Impediments

The siting of energy production facilities is regulated in some manner in all states. The types and degree of impediments presented will vary depending on the type of siting program in effect in a particular jurisdiction and the type of facility proposed to be constructed. In those states which have not adopted comprehensive one-stop siting programs, a utility desiring to construct an energy production facility generally must seek approval from a variety of state and local agencies. Because an ICES developer in such a state will be forced to obtain numerous approvals, the procedural requirements related to obtaining such multiple approvals could present significant impediments to the implementation of ICES. In those states which have attempted to minimize the procedural difficulties presented by the need to obtain multiple approvals by implementing one-stop comprehensive siting programs, an ICES operator may face significant impediments in the form of substantive requirements in obtaining the required approval.

C. Local Franchising Impediments

In addition to obtaining certificates of convenience and necessity from PUCs and siting approvals from one or more state agencies, ICES operators generally will be required to

obtain franchises from local governments to use public rights-of-way for transmission and distribution facilities. Because of the total lack of uniformity in the law and procedures governing local franchising, ICES operators will face many uncertainties in this area. One major uncertainty related to whether a franchise is needed or available and; if a franchise is not available, whether this will preclude the use of public rights-of-way in conjunction with the operation of the ICES. Many franchise enabling statutes list specific services which local governments are authorized to franchise. In addition, most statutes require that the franchisee be serving a public purpose in order to be eligible for a franchise. These types of restrictions raise the question of whether, if an ICES is providing a service which is not deemed to be serving a public purpose, a franchise may be granted. If a franchise cannot be granted, significant uncertainty exists with respect to whether the ICES may operate along public rights-of-way without a franchise. If not, it may be precluded from operating unless all facilities are maintained on private property with the permission of the property owners.

Assuming a franchise is available to an ICES, additional uncertainty exists with respect to the procedure pursuant to which the franchise will be granted and the standards which will be applied in determining whether the franchise should be granted. These procedures and standards vary substantially from state to state and from municipality to municipality within each state.

Finally, an ICES which might otherwise be eligible for a franchise may be unable to obtain the necessary franchise as a result of a prior grant of an exclusive franchise to another utility serving the area. Nearly one-half of the states have not resolved the issue of whether exclusive franchises are permissible.

D. Rate Regulation Impediments

Assuming that an ICES operator can overcome or operate in spite of the impediments described above and begin its operations, it must be able to market both energy streams at competitive rates in order to stay in business. Several areas of PUC rate regulation may impede the ICES' ability to operate profitably. For example, an ICES may find that the rates for one energy stream are regulated on a statewide basis by the PUC while the remaining stream is regulated by one or more local governments. With such split jurisdiction, there can be little assurance that rates will be regulated consistently and in such a way as to enable competitive marketing of both energy streams.

Even if both energy streams are regulated by the PUC, resolution of various cost and rate-base allocation issues could present serious issues unique to ICES. Depending on the method chosen to allocate costs and rate base between the two services being marketed, the ICES operator may find that it will be compelled to sell one energy stream at a rate too low for the whole ICES to be profitable while the second energy stream must be sold at a rate too high to be competitive.

In addition, PUCs traditionally have exercised rate-making authority only with respect to sales by conventional utilities operating in a monopoly market. Investment in these conventional utilities traditionally has been considered a low-risk investment and, therefore, the rates of return on equity permitted by PUCs have been commensurately low. Because ICES, as a new industry and as a utility operating in competition with other utilities, will be viewed as a more risky investment, PUC decisions with respect to allowable rates of return will have a significant impact on the ability of ICES to attract investors. Rates of return satisfactory to investors in conventional utilities are unlikely to attract investors to the more risky ICES operations.

Finally, ICES must be able to obtain reasonable rates for sales of excess electrical power to and purchases of back-up electrical power from conventional electric utilities. These rates also will be regulated by PUCs and the PUC determinations will substantially affect the ability of the ICES to operate profitably. The uncertainty surrounding the factors that will be considered by PUCs in establishing these rates is very likely to be perceived as an impediment by prospective ICES operators and investors.

CHAPTER 7

OVERCOMING IMPEDIMENTS TO ICES -- SUMMARY

The Chapter 6 analysis demonstrates that the traditional public utility regulatory system presents numerous impediments to the implementation of ICES. These impediments do not appear in the form of a list of individual statutory or rule provisions which can be easily modified to accommodate ICES. Rather, the impediments take the form of the existing regulatory system itself -- a system which is based largely on a set of assumptions and practices foreign to the ICES concept.

Because the existing regulatory system is, in effect, the major impediment to the implementation of ICES, there are only two available alternatives for dealing with this impediment. Advocates of ICES can attempt to change the system, or they can work within the system in order to demonstrate the value of the ICES concept. Because many of the regulatory provisions which appear to be impediments to the implementation of ICES are integral parts of the existing regulatory system, however, any effort to change the system sufficiently to encourage the widespread implementation of ICES will require changes so fundamental that traditional forces operating within the system would have little trouble blocking such changes. Thus, a widespread effort by the advocates of ICES to change the system may result in a substantial expenditure of resources while bringing about very little change.

There is no single configuration or form of ICES. While differences can result from employing different technologies to produce different energy streams, the most useful classifications for purposes of analyzing potential institutional impediments to the implementation of ICES are those based on type of owner/developer and the nature of the customer group served. The classification scheme used in the following analyses includes ICES-Utility -- an ICES owned and operated by a conventional electric utility, ICES-Complex -- an ICES designed to serve existing institutional complexes such as government, commercial, industrial, residential or medical centers, ICES-Heat Plant -- an ICES providing thermal service for its own use or the use of a limited class of customers and selling all electrical output to a conventional utility, ICES-Co-Op -- an ICES owned by its customers and serving only these member/customers and ICES-Entrepreneur -- an ICES owned and operated by any entity intending to sell or provide utility service at retail to all users within a particular service area. Obviously, additional types, of ICES can be developed by combining these various modes of ownership with the various available customer classes.

ICES may be established gradually in forms that will not encounter, or not be significantly affected by, many of the impediments discussed above. When the various types of ICES are compared against the existing regulatory framework, it is apparent that there is a wide range in the degree of compatibility

between that framework and the various ICES types. The degree to which the implementation of ICES will be impeded by the existing regulatory system varies greatly depending on the form of ownership of the ICES, the number and type of customers which it intends to serve and the manner in which it will conduct its utility operations. Therefore, if advocates of ICES seek implementation along the paths of least resistance, this gradual implementation will provide ICES technology with an opportunity to establish its viability and adapt to the existing regulatory system while permitting the existing system to become familiar with and adapt to the peculiar problems and benefits of ICES. The following may be the most appropriate sequence of implementation of ICES:

I. ICES-Utility

ICES-Utility would include any ICES owned by an existing electric utility and operated as a part of its existing utility business. The utility could either operate its own cogeneration equipment or operate equipment owned by another entity on behalf of the owner. The utility would carry on its electrical operations in the same manner as it had before becoming involved with the ICES, but the particular arrangements for the sale of thermal energy could vary. Thermal energy might be distributed by the ICES-Utility to individual customers or it could be sold in bulk to a single customer for use by that customer or for further distribution by it."

ICES-Utility, because it would be operated by an existing utility, would be least affected by the regulatory impediments discussed in Chapter 6. As an existing utility, the ICES operator would already be subject to PUC regulatory jurisdiction and would have the experience necessary to function within that system with a minimum of inconvenience. In addition, the ICES-Utility might be able to install and maintain its ICES equipment pursuant to existing franchises, certificates or other approvals or obtain minor modifications in these prior approvals so as to permit the ICES operations.

II. ICES-Complex, ICES-Heat Plant

A second approach would be to structure ICES so as to take advantage of traditional exemptions built into the existing regulatory scheme in most states. In all states, a utility must be providing service "to or for the public" before it will be subject to PUC regulatory jurisdiction. In about half of the states, a utility will be subject to PUC jurisdiction only if it is deemed to be making "sales" of energy service. If the ICES is structured so as to either not be deemed to be providing service "to or for the public" or not to be making "sales" of energy services, that ICES would not be subject to PUC regulatory jurisdiction. ICES-Complex and ICES-Heat Plant would be structured so that energy services would be provided only to a limited and clearly defined class of customers. In addition, in many cases, such ICES may be able to provide energy service

as a part of an over-all rental package rather than on an individual metered basis. Such ICES could, in many cases, avoid classification as public utilities. Examples of such ICES would be an ICES established to serve a residential, industrial, commercial, governmental or university complex.

A great deal of uncertainty exists with respect to what types of service can be provided and to how many customers before a utility will be deemed to be subject to PUC jurisdiction. These uncertainties, however, could be remedied by means of fairly simple legislative or administrative action.

By operating so as to avoid PUC regulatory jurisdiction, these ICES will also give up the protections afforded by the regulatory system. Thus, such ICES may be able to operate in competition with conventional utilities without having to obtain PUC approval, but they also must be capable of waging a competitive battle with the existing utilities in the area to be served because they would not enjoy the luxury of the traditional monopoly status of a public utility. Similarly, such ICES would not be subject to PUC rate regulation but would also possibly not receive adequate regulatory protection in their attempts to negotiate contracts to purchase back-up power from or sell surplus power to conventional utilities.

III. ICES-Co-Op

ICES-Co-Op, unlike the ICES discussed above, could lend itself to broad implementation of ICES. By operating as a

cooperative -- a utility which is owned by its customers and provides service only to these owner/customers -- the ICES-Co-Op could avoid many of the more troublesome aspects of the traditional regulatory system while still enjoying many of its benefits. For example, utility cooperatives are exempted from PUC rate regulation and regulation of financial affairs in many states. On the other hand, utility cooperatives often are subject to service area restrictions and, therefore, are afforded the protections of the various methods of territorial allocations utilized by PUCs.

This traditional utility concept could be utilized by, and modified to better serve, ICES projects intended to serve large numbers of customers. One area of possible modification would be to permit qualifying ICES-Co-Ops to commence operations in service areas of conventional utilities under certain circumstances. Qualifying ICES-Co-Ops could be allowed to serve only large concentrations of new customers or they could be allowed to serve existing concentrations of customers. The prejudicial effect of such an extension of the cooperative concept could be minimized by requiring ICES-Co-Ops to purchase those facilities of the conventional utility within the ICES service area which are necessary for serving the ICES customers and which would be rendered unnecessary to the utility.

IV. Exempt-ICES

By utilizing the ICES types discussed above, advocates of ICES can implement ICES in forms which will be least affected by regulatory impediments in order to establish showcase ICES designed to demonstrate the viability and special benefits of the ICES concept. After these showcase ICES have existed in peaceful coexistence with conventional utilities for a time, conventional utilities, utility regulators and legislators may be more amenable to the type of system modifications necessary to encourage widespread implementation of ICES in many forms. At this point, the advocates of an ICES might effectively petition PUCs and state legislatures to define certain categories of ICES which will be exempt from certain troublesome aspects of the traditional regulatory system while enjoying some of its benefits.

In order to qualify as an Exempt-ICES, the ICES must, of course, be required to establish that it would be a reliable, responsible supplier of energy. Once utility regulators are convinced that the ICES has the financial and technological ability to adequately serve its proposed customers, the ICES could be exempted from many traditional areas of regulation without jeopardizing the best interest of the customers.

The Exempt-ICES should be permitted to commence operations to appropriate groups of customers in the service areas of conventional utilities. However, like the ICES-Co-Op, it should be required to purchase any equipment owned by the conventional utility which is rendered useless as a result of

the ICES being permitted to serve customers within the conventional utility's service area. Once it has established its service area, the Exempt-ICES should receive the type of territorial protection traditionally afforded public utilities.

The Exempt-ICES could also be freed from traditional PUC rate regulation. Rather than establishing traditional cost-based rates, the Exempt-ICES could be permitted to market its energy package at any rate which does not exceed the rates for comparable service from conventional utilities. If the Exempt-ICES believed that it was, for some reason, entitled to higher rates, it should be compelled to submit to traditional rate-making procedures. This should assure that, if the ICES concept is in fact economically viable, investors will be able to achieve sufficient returns on their investment while ICES customers are guaranteed reliable energy service at reasonable rates.

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