CHAPTER 4220
PUBLIC UTILITIES COMMISSION
POWER PLANTS AND LINES

4220.0100 DEFINITIONS.

Subpart 1. **Scope.** For purposes of this chapter, the following definitions shall apply.

Subp. 2. **Adjusted net capability.** "Adjusted net capability" means net generating capacity, minus participation sales, plus participation purchases.

Subp. 3. **Adjusted net demand.** "Adjusted net demand" means system demand, minus firm purchases, plus firm sales.

Subp. 4. **Agency.** "Agency" means the Public Utilities Commission.

Subp. 5. **Annual adjusted net demand.** "Annual adjusted net demand" means annual system demand, minus firm purchases, plus firm sales.

Subp. 6. **Annual electrical consumption.** "Annual electrical consumption" means sales of kilowatt-hours of electricity to ultimate consumers over a 12-month period beginning January 1 and ending December 31 of the forecast year.

Subp. 7. **Annual system demand.** "Annual system demand" means the highest system demand occurring during the 12-month period beginning May 1 of the forecast year.

Subp. 8. **Director.** "Director" means the director of the agency.

Subp. 9. **Firm purchases; firm sales.** "Firm purchases" and "firm sales" mean the amount of power to be purchased or sold which is intended to have assured availability.

Subp. 10. **Forecast years.** "Forecast years" means the 26 calendar years consisting of the calendar year the application is filed with the agency, the ten previous calendar years, and the 15 subsequent calendar years.

Subp. 11. **Heat rate.** "Heat rate" means a measure of average thermal efficiency of an electric generating facility expressed as the ratio of input energy per net kilowatt-hour produced, computed by dividing the total energy content of fuel burned for electricity generation by the resulting net kilowatt-hour generation.

Subp. 12. **LEGF; large electric generating facility.** "Large electric generating facility (LEGF)" means any electric power generating unit or combination of units at a single site and associated facilities designed for or capable of operation at a combined capacity of 50,000 kilowatts or more, or any facility of 5,000 kilowatts or more that requires oil, natural gas, or natural gas liquids as a fuel and

for which an installation permit has not been applied for by May 19, 1977, pursuant to part 7005.0200.

Subp. 13. **LHVTL; large high voltage transmission line.** "Large high voltage transmission line (LHVTL)" means a conductor of electrical energy and associated facilities designed for and capable of operation at a nominal voltage of 200 kilovolts or more with more than 80.4 kilometers (50 miles) of its length in Minnesota, or at a nominal voltage of 300 kilovolts or more with more than 40.2 kilometers (25 miles) of its length in Minnesota. Associated facilities shall include but not be limited to insulators, towers, and substations and terminals operating at the nominal voltage.

Subp. 14. **Load center.** "Load center" means that portion or those portions of a utility's system where electrical energy demand is concentrated.

Subp. 15. **Load factor.** "Load factor" means the ratio of the average load in kilowatts supplied during a designated period to the maximum load in kilowatts that was supplied during that designated period.

Subp. 16. **Minnesota service area.** "Minnesota service area" means that portion of a utility's system lying within Minnesota.

Subp. 17. **Net generating capacity.** "Net generating capacity" means the total number of kilowatts, less station use, that all the generating facilities of a system could supply at the time of its maximum system demand. The capability of the generating units that are temporarily out of service for maintenance or repair shall be included in the net generating capacity.

Subp. 18. **Net reserve capacity obligation.** "Net reserve capacity obligation" means the annual adjusted net demand multiplied by the percent reserve capacity requirement.

Subp. 19. **Participation power.** "Participation power" means power and energy that are sold from a specific generating unit or units for a period of six or more months on a continuously available basis (except when such unit or units are temporarily out of service for maintenance, during which time the delivery of energy from other generating units is at the seller's option).

Subp. 20. **Participation purchases; participation sales.** "Participation purchases" and "participation sales" mean purchases and sales under a participation power agreement or a seasonal participation power agreement.

Subp. 21. **Peak demand.** "Peak demand" means the highest system demand occurring within any designated period of time.

Subp. 22. **Promotional practices.** "Promotional practices" means any action or policies by an applicant, except those actions or policies that are permitted or mandated by statute or rule, which directly or indirectly give rise to the demand for the facility, including but not limited to advertising, billing practices, promotion of increased use of electrical energy, and other marketing activities.

Subp. 23. **Seasonal adjusted net demand.** "Seasonal adjusted net demand" means seasonal system demand, minus firm purchases, plus firm sales.

Subp. 24. **Seasonal participation power.** "Seasonal participation power" means participation power sold and bought on a seasonal (summer or winter) basis.

Subp. 25. **Seasonal system demand.** "Seasonal system demand" means the maximum system demand on the applicant's system that occurs or is expected to occur in any summer season or winter season.

Subp. 26. **Summer season.** "Summer season" means the period from May 1 through October 31.

Subp. 27. **System.** "System" means the service area where the utility's ultimate consumers are located and that combination of generating, transmission, and distribution facilities that makes up the operating physical plant of the utility, whether owned or nonowned, for the delivery of electrical energy to ultimate consumers.

Subp. 28. **System demand.** "System demand" means the number of kilowatts that is equal to the kilowatt-hours required in any clock hour, attributable to energy required by the system during such hour for supply of firm energy to ultimate consumers, including system losses, and also including any transmission losses occurring on other systems and supplied by the system for transmission of firm energy, but excluding generating station uses and excluding transmission losses charged to another system.

Subp. 29. **Ultimate consumers.** "Ultimate consumers" means consumers purchasing electricity for their own use and not for resale.

Subp. 30. **Utility.** "Utility" means any entity engaged in the generation, transmission, or distribution of electrical energy, including but not limited to a private investor-owned utility or a public or municipally-owned utility.

Subp. 31. **Winter season.** "Winter season" means the period from November 1 through April 30.

Statutory Authority: *MS s 116J.10*

History: *L 1983 c 289 s 115 subd 1*

4220.0200 PURPOSE OF RULES.

The purpose of this chapter is to specify the content of applications for certificates of need and to specify criteria for the assessment of need for large electric generating facilities and large high voltage transmission lines. In accordance with Minnesota Statutes, section 216B.243, subdivision 2, no LEGF or LHVTL shall be sited or constructed in Minnesota without the issuance of a certificate of need by the director pursuant to Minnesota Statutes, sections 116J.05 to 116J.30 and consistent with the criteria for assessment of need.

Statutory Authority: *MS s 116J.10*

4220.0300 SCOPE OF RULES.

Each person applying for a certificate of need for an LEGF or an LHVTL shall provide all information required by this chapter. A certificate of need is required for each new LEGF, each new LHVTL, and for each expansion of either such facility, which expansion is itself of sufficient size to come within the definition of "large electric generating facility" or "large high voltage transmission line" in part 4220.0100.

Statutory Authority: *MS s 116J.10*

CRITERIA FOR ASSESSMENT OF NEED

4220.1100 PURPOSE OF CRITERIA.

The criteria for assessment of need shall be used by the director in the determination of the need for a proposed large energy facility pursuant to Minnesota Statutes, sections 116J.05 to 116J.30. The factors listed under each of the criteria set forth in part 4220.1300 shall be evaluated to the extent that the director deems them applicable and pertinent to each facility proposed pursuant to this chapter. The director shall make a specific written finding with respect to each of the criteria.

Statutory Authority: *MS s 116J.10*

4220.1200 CONSIDERATION OF ALTERNATIVES.

The director shall consider only those alternatives proposed before the close of the public hearing and for which there exists substantial evidence on the record with respect to each of the criteria listed in part 4220.1300.

Statutory Authority: *MS s 116J.10*

4220.1300 CRITERIA.

A certificate of need shall be granted to the applicant if it is determined that:

A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

(1) the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;

(2) the effects of the applicant's existing or expected conservation programs and state and federal conservation programs;

(3) the effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;

(4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and

(5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant, considering:

(1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;

(2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;

(3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and

(4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;

C. it has been demonstrated by a preponderance of the evidence on the record that the proposed facility, or a suitable modification thereof, will provide benefits to society in a manner compatible with protection of the natural and socioeconomic environments, including human health, considering:

(1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;

(2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;

(3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and

(4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and

D. it has not been demonstrated on the record that the design, construction, or operation of the proposed facility, or a suitable modification thereof, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

Statutory Authority: *MS s 116J.10*

APPLICATIONS FOR CERTIFICATES OF NEED

4220.2100 APPLICATION PROCEDURES AND TIMING.

Subpart 1. **Form and manner.** Each applicant for a certificate of need shall apply in a form and manner prescribed by the director.

Subp. 2. **Copies, title, table of contents.** A minimum of 50 bound copies and one unbound copy of the application shall be filed with the director. The director

may require additional bound copies, not to exceed 100 bound copies total. All documents, forms, and schedules filed with the application shall be typed on 8-1/2 inch by 11 inch paper except for drawings, maps, and similar materials. Each application shall contain a title page and a complete table of contents which includes the applicable rule by the titles and numbers given in this chapter. The date of preparation and the applicant's name shall appear on the title page, as well as on each document filed with the application.

Subp. 3. **Changes to application.** Subsequent to the filing of an application, any changes or corrections to the application shall comply with subpart 2 as to the number of copies and size of documents. In addition, each page of a change or correction to a previously filed page shall be marked with the word "REVISED" and with the date the revision was made. The original copy of the changes or corrections shall be filed with the hearing examiner, and the remaining copies shall be submitted to the director.

Subp. 4. **Cover letter.** Each application for a certificate of need shall be accompanied by a cover letter signed by an authorized officer or agent of the applicant. The cover letter shall specify the type of facility for which a certificate of need is requested and the number of copies of the application filed.

Subp. 5. **Public hearing.** A hearing examiner shall be assigned, and a public hearing shall be scheduled to commence no later than 80 days after the receipt of the application, in accordance with rules of procedure governing certificate of need program, chapter 4210 and the Office of Administrative Hearings' rules for contested case procedures, parts 1400.5100 to 1400.8500.

Subp. 6. **Timely decision.** A decision on an application for a certificate of need shall be made by the director no later than six months from the receipt of the application, provided that the application as received is substantially complete.

Subp. 7. **Complete applications.** The director shall notify the applicant within 15 days of the receipt of an application if the application is not substantially complete. Upon such notification, the applicant may correct any deficiency and may resubmit the application. A decision shall be made upon the revised application within six months of the date of resubmission, assuming it is then substantially complete.

Subp. 8. **Exemptions.** Prior to the submission of an application, a person may be exempted from any data requirement of this chapter upon a written request to the director for exemption from specified rules and a showing by that person in the request that the data requirement is unnecessary to determine the need for the proposed facility or may be satisfied by submission of another document. A request for exemption must be filed at least 20 days prior to submission of an application. The director shall respond in writing to each such request within 15 days of receipt including reasons for the decision. The director shall file a statement of exemptions granted and reasons therefor prior to commencement of the hearing.

Statutory Authority: *MS s 116J.10*

4220.2200 FILING FEES AND PAYMENT SCHEDULE.

Subpart 1. **Fees.** The fee for processing an application shall be: $10,000 plus $50 for each megawatt of plant capacity for LEGF's; or $10,000 plus $40 per kilovolt of design voltage for LHVTL's; plus such additional fees as are reasonably necessary for completion of the evaluation of need for the proposed facility.

Subp. 2. **Payment schedule.** Twenty-five percent of the fee set according to subpart 1 shall accompany the application, and the balance shall be paid in three equal installments within 45, 90, and 135 days after submission of the application. The applicant shall be notified prior to the time its application is acted upon by the director of any additional fees, which fees shall be paid within 30 days of notification. The billing of such additional fees shall be accompanied by an itemized document showing the necessity for the additional assessment.

Subp. 3. **Payment required.** No certificate of need shall be issued until all fees are paid in full.

Statutory Authority: *MS s 116J.10*

4220.2300 CONTENTS OF APPLICATION.

Subpart 1. **Large electric generating facilities (LEGF).** Each application for a certificate of need for an LEGF shall include all of the information required by parts 4220.2400, 4220.2500, and 4220.2700 to 4220.3400.

Subp. 2. **Large high voltage transmission lines (LHVTL).** Each application for a certificate of need for an LHVTL shall include all of the information required by parts 4220.2400 and 4220.2600 to 4220.3400. If, however, a proposed LHVTL is designed to deliver electric power to a particular load center within the applicant's system, the application shall contain the information required by part 4220.2700 for that load center rather than for the system as a whole.

Subp. 3. **Joint ownership and multiparty use.** If the proposed LEGF or LHVTL is to be owned jointly by two or more utilities or by a pool, all information required by parts 4220.2400 and 4220.2700 to 4220.3000 shall be provided by each joint owner for its system. If the facility is designed to meet the long-term needs (in excess of 50 megawatts) of a particular utility that is not to be an owner, that utility shall also provide all information required by parts 4220.2400 and 4220.2700 to 4220.3000.

Statutory Authority: *MS s 116J.10*

4220.2400 NEED SUMMARY AND ADDITIONAL CONSIDERATIONS.

Subpart 1. **Need summary.** Each application shall contain a summary of the major factors that justify the need for the proposed facility. This summary shall not exceed, without the approval of the director, 15 pages in length, including text, tables, graphs, and figures.

Subp. 2. **Additional considerations.** Each application shall contain an explanation of the relationship of the proposed facility to each of the following socioeconomic considerations:

A. socially beneficial uses of the output of the facility, including its uses to protect or enhance environmental quality;

B. promotional activities that may have given rise to the demand for the facility; and

C. the effects of the facility in inducing future development.

Statutory Authority: *MS s 116J.10*

4220.2500 DESCRIPTION OF PROPOSED LARGE ELECTRIC GENERATING FACILITY AND ALTERNATIVES.

Each application for a proposed LEGF shall include the following information:

A. a description of the facility, including:

(1) a description of the generating capacity of the facility, which includes a discussion of the effect of the economies of scale on the facility size and timing;

(2) a description of the anticipated operating cycle, including the expected annual capacity factor;

(3) the type of fuel used, including the reason for the choice of fuel, projection of the availability of this fuel type over the projected life of the facility, and alternate fuels, if any;

(4) the anticipated heat rate of the facility; and

(5) to the fullest extent known to the applicant, the anticipated areas where the proposed facility could be located;

B. a discussion of the availability of alternatives to the facility, including but not limited to:

(1) purchased power;

(2) increased efficiency of existing facilities, including transmission lines;

(3) new transmission lines;

(4) new generating facilities of a different size or using a different energy source (fuel oil, natural gas, coal, nuclear fission, and the emergent technologies); and

(5) any reasonable combinations of the alternatives listed in subitems (1) to (4);

C. for the proposed facility and for each of the alternatives provided in response to item B that could provide electric power at the asserted level of need, a discussion of:

(1) its capacity cost in current dollars per kilowatt;

(2) its service life;

(3) its estimated average annual availability;

(4) its variable operating and maintenance costs in current dollars per kilowatt-hour;

(5) the total cost in current dollars of a kilowatt-hour provided by it;

(6) its efficiency, expressed for a generating facility as the estimated heat rate, or expressed for a transmission facility as the estimated losses under projected maximum loading and under projected average loading in the length of the transmission line and at the terminals or substations; and

(7) any major assumptions made in providing the information in subitems (1) to (6);

D. a map (of appropriate scale) showing the applicant's system; and

E. such other information about the proposed facility and each alternative as may be relevant to determination of need.

Statutory Authority: *MS s 116J.10*

4220.2600 DESCRIPTION OF PROPOSED LARGE HIGH VOLTAGE TRANSMISSION LINE AND ALTERNATIVES.

Each application for a proposed LHVTL shall include the following information:

A. a description of the type and general location of the proposed line, including:

(1) the design voltage;

(2) the number, the sizes, and the types of conductors;

(3) the expected losses under projected maximum loading and under projected average loading in the length of the transmission line and at the terminals or substations;

(4) the approximate length of the proposed transmission line and the portion of that length in Minnesota;

(5) the approximate location of DC terminals or AC substations, which information shall be on a map of appropriate scale; and

(6) a list of all counties reasonably likely to be affected by construction and operation of the proposed line;

B. a discussion of the availability of alternatives to the facility, including but not limited to:

(1) new generation;

(2) upgrading of existing transmission lines or existing generating facilities;

(3) transmission lines with different design voltages or with different numbers, sizes, and types of conductors;

(4) transmission lines with different terminals or substations;

(5) double circuiting of existing transmission lines;

(6) if the proposed facility is for DC (AC) transmission, an AC (DC) transmission line;

(7) if the proposed facility is for overhead (underground) transmission, an underground (overhead) transmission line; and

(8) any reasonable combinations of the alternatives listed in subitems (1) to (7);

C. for the proposed facility and for each of the alternatives provided in response to item B that could provide electric power at the asserted level of need, a discussion of:

(1) its total cost in current dollars;

(2) its service life;

(3) its estimated average annual availability;

(4) its estimated annual operating and maintenance costs in current dollars;

(5) its efficiency, expressed for a transmission facility as the estimated losses under projected maximum loading and under projected average loading in the length of the transmission line and at the terminals or substations, or expressed for a generating facility as the estimated heat rate; and

(6) any major assumptions made in providing the information in subitems (1) to (5);

D. a map (of appropriate scale) showing the applicant's system or load center to be served by the proposed LHVTL; and

E. such other information about the proposed facility and each alternative as may be relevant to determination of need.

Statutory Authority: *MS s 116J.10*

4220.2700 PEAK DEMAND AND ANNUAL ELECTRICAL CONSUMPTION FORECAST.

Subpart 1. **Scope.** Each application shall contain pertinent data concerning peak demand and annual electrical consumption within the applicant's service area and system, as provided in part 4220.2300, including but not limited to the data requested in subpart 2, item B. When recorded data is not available, or when the applicant does not use the required data in preparing its own forecast, the applicant shall use an estimate and indicate in the forecast justification section in subparts 3 to 6 the procedures used in deriving the estimate. The application shall clearly indicate which data are historical and which are projected. It is expected that data provided by the applicant should be reasonable and internally consistent.

Subp. 2. **Content of forecast.** For each forecast year, the following data shall be provided:

A. when the applicant's service area includes areas other than Minnesota, annual electrical consumption by ultimate consumers within the applicant's Minnesota service area;

B. for each of the following categories, estimates of the number of ultimate consumers within the applicant's system and annual electrical consumption by those consumers:

(1) farm, excluding irrigation and drainage pumping (for reporting

purposes, any tract of land used primarily for agricultural purposes shall be considered farm land);

(2) irrigation and drainage pumping;

(3) nonfarm residential (when electricity is supplied through a single meter for both residential and commercial uses, it shall be reported according to its principal use, and apartment buildings shall be reported as residential even if not separately metered);

(4) commercial (this category shall include wholesale and retail trade; communication industries; public and private office buildings, banks, and dormitories; insurance, real estate and rental agencies; hotels and motels; personal business and auto repair services; medical and educational facilities; recreational, social, religious, and amusement facilities; governmental units, excluding military bases; warehouses other than manufacturer owned; electric, gas, water and water pumping, excluding water pumping for irrigation, and other utilities);

(5) mining;

(6) industrial (this category shall include all manufacturing industries, construction operations and petroleum refineries);

(7) street and highway lighting;

(8) electrified transportation (this category shall include energy supplied for the propulsion of vehicles, but shall not include energy supplied for office buildings, depots, signal lights or other associated facilities that shall be reported as commercial or industrial);

(9) other (this category shall include municipal water pumping facilities, oil and gas pipeline pumping facilities, military camps and bases, and all other consumers not reported in subitems (1) to (8)); and

(10) the sum of subitems (1) to (9);

C. an estimate of the demand for power in the applicant's system at the time of annual system peak demand, including an estimated breakdown of the demand into the consumer categories listed in item B;

D. the applicant's system peak demand by month;

E. the estimated annual revenue requirement per kilowatt-hour; and

F. the applicant's system weekday load factor by month.

Subp. 3. **Forecast methodology.** Each applicant may use a forecast methodology of its own choosing, with due consideration given to cost, manpower requirements, and data availability. However, any forecast data provided by the applicant shall be subject to tests of accuracy, reasonableness, and consistency. The applicant shall detail the forecast methodology employed to obtain the forecasts provided under subpart 2, including:

A. the overall methodological framework that is used;

B. the specific analytical techniques which are used, their purpose, and the components of the forecast to which they have been applied;

C. the manner in which these specific techniques are related in producing the forecast;

D. where statistical techniques have been used:

(1) the purpose of the technique;

(2) typical computations (e.g., computer printouts, formulas used), specifying variables and data; and

(3) the results of appropriate statistical tests;

E. forecast confidence levels or ranges of accuracy for annual peak demand and annual electrical consumption, as well as a description of their derivation;

F. a brief analysis of the methodology used, including:

(1) its strengths and weaknesses;

(2) its suitability to the system;

(3) cost considerations;

(4) data requirements;

(5) past accuracy; and

(6) other factors considered significant by the applicant; and

G. an explanation of any discrepancies which appear between the forecasts presented in the application and the forecasts submitted to the agency under chapter 4100 or in the applicant's previous certificate of need proceedings.

Subp. 4. **Data base for forecasts.** The applicant shall discuss the data base used in arriving at the forecast presented in its application, including:

A. a complete list of all data sets used in making the forecast, including a brief description of each data set and an explanation of how each was obtained, (e.g., monthly observations, billing data, consumer survey, etc.) or a citation to the source (e.g., population projection from the state demographer's office);

B. a clear identification of any adjustments made to raw data in order to adapt them for use in forecasts, including:

(1) the nature of the adjustment;

(2) the reason for the adjustment; and

(3) the magnitude of the adjustment.

The applicant shall provide to the director or the hearing examiner on demand copies of all data sets used in making the forecasts, including both raw and adjusted data, input and output data.

Subp. 5. **Assumptions and special information.** The applicant shall discuss each essential assumption made in preparing the forecast, including the need for the assumption, the nature of the assumption, and the sensitivity of forecast results to variations in the essential assumptions.

The applicant shall discuss the assumptions made regarding:

A. the availability of alternate sources of energy;

B. the expected conversion from other fuels to electricity or vice versa;

C. future prices of electricity for customers in the applicant's system and the effect that such price changes will likely have on the applicant's system demand;

D. the assumptions made in arriving at any data requested in subpart 2 that is not available historically or not generated by the applicant in preparing its own internal forecast;

E. the effect of existing energy conservation programs under federal or state legislation on long-term electrical demand; and

F. any other factor considered by the applicant in preparing the forecast.

Subp. 6. **Coordination of forecasts with other systems.** The applicant shall provide:

A. a description of the extent to which the applicant coordinates its load forecasts with those of other systems, such as neighboring systems and associate systems in a power pool or coordinating organization; and

B. a description of the manner in which such forecasts are coordinated, and any problems experienced in efforts to coordinate load forecasts.

Statutory Authority: *MS s 116J.10*

4220.2800 SYSTEM CAPACITY.

The applicant shall describe the ability of its existing system to meet the demand for electrical energy forecast in response to part 4220.2700 and the extent to which the proposed facility will increase this capability. In preparing this description, the applicant shall present the following information:

A. a brief discussion of power planning programs, including criteria, applied to the applicant's system and to the power pool or area within which the applicant's planning studies are based;

B. the applicant's seasonal firm purchases and seasonal firm sales for each utility involved in each transaction for each of the forecast years;

C. the applicant's seasonal participation purchases and seasonal participation sales for each utility involved in each transaction for each of the forecast years;

D. for the summer season and for the winter season corresponding to each forecast year, the load and generation capacity data requested in subitems (1) to (13), including all anticipated purchases, sales, capacity retirements, and capacity additions, except those which depend on certificates of need not yet issued by the agency:

(1) seasonal system demand;

(2) annual system demand;

(3) total seasonal firm purchases;

(4) total seasonal firm sales;

(5) seasonal adjusted net demand (subitem (1) minus subitem (3) plus subitem (4));

(6) annual adjusted net demand (subitem (2) minus subitem (3) plus subitem (4));

(7) net generating capacity;

(8) total participation purchases;

(9) total participation sales;

(10) adjusted net capability (subitem (7) plus subitem (8) minus subitem (9));

(11) net reserve capacity obligation;

(12) total firm capacity obligation (subitem (5) plus subitem (11)); and

(13) surplus or deficit (-) capacity (subitem (10) minus subitem (12));

E. for the summer season and for the winter season corresponding to each forecast year subsequent to the year of application, the load and generation capacity data requested in item D, subitems (1) to (13), including purchases, sales, and generating capability contingent on the proposed facility;

F. for the summer season and for the winter season corresponding to each forecast year subsequent to the year of application, the load and generation capacity data requested in item D, subitems (1) to (13), including all projected purchases, sales, and generating capability;

G. for each of the forecast years subsequent to the year of application, a list of proposed additions and retirements in net generating capability, including the probable date of application for any addition that is expected to require a certificate of need;

H. for the previous calendar year, the current year, the first full calendar year before the proposed facility is expected to be in operation and the first full calendar year of operation of the proposed facility, a graph of monthly adjusted net demand and monthly adjusted net capability, as well as a plot on the same graph of the difference between the adjusted net capability and actual, planned, or estimated maintenance outages of generation and transmission facilities; and

I. a discussion of the appropriateness of and the method of determining system reserve margins, considering the probability of forced outages of generating units, deviation from load forecasts, scheduled maintenance outages of generation and transmission facilities, power exchange arrangements as they affect reserve requirements, and transfer capabilities.

Statutory Authority: *MS s 116J.10*

4220.2900 CONSERVATION PROGRAMS.

Each application shall include the following information:

A. the name of the committee, department, or individual responsible for the applicant's energy conservation and efficiency programs;

B. a list of the applicant's energy conservation and efficiency goals and objectives;

C. a description of the specific energy conservation and efficiency programs the applicant has considered, a list of those that have been implemented, and the reasons why the other programs have not been implemented;

D. a description of the major accomplishments that have been made by the applicant with respect to energy conservation and efficiency;

E. a description of the applicant's future plans through the forecast years with respect to energy conservation and efficiency; and

F. a quantification of the manner by which these programs affect or help determine the forecast provided in response to part 4220.2700, subpart 2, a list of their total costs by program, and a discussion of their expected effects in reducing the need for new generating facilities.

Statutory Authority: *MS s 116J.10*

4220.3000 CONSEQUENCES OF DELAY.

The applicant shall present a discussion of anticipated consequences to its system, neighboring systems, and the power pool should the proposed facility be delayed one, two, and three years, or postponed indefinitely.

Statutory Authority: *MS s 116J.10*

4220.3100 ENVIRONMENTAL INFORMATION REQUIRED.

Each applicant shall provide environmental data for the proposed facility and for each alternative considered in detail in response to part 4220.2500, item C or 4220.2600, item C. Information relating to construction and operation of each of these alternatives shall be provided as indicated in parts 4220.3200 to 4220.3400, to the extent that such information is reasonably available to the applicant and applicable to the particular alternative. Where appropriate, the applicant shall submit data for a range of possible facility designs. Major assumptions should be stated, and references should be cited where appropriate.

Statutory Authority: *MS s 116J.10*

4220.3200 GENERATING FACILITIES.

The applicant shall provide the following information for each alternative that would involve construction of an LEGF:

A. the estimated range of land requirements for the facility with a discussion of assumptions on land requirements for water storage, cooling systems, and solid waste storage;

B. the estimated amount of vehicular, rail, and barge traffic generated by construction and operation of the facility;

C. for fossil-fueled facilities:

(1) the expected regional sources of fuel for the facility;

(2) the typical fuel requirement (in tons per hour, gallons per hour, or thousands of cubic feet per hour) during operation at rated capacity and the expected annual fuel requirement at the expected capacity factor;

(3) the expected rate of heat input for the facility in Btu per hour during operation at rated capacity;

(4) the typical range of the heat value of the fuel (in Btu per pound, Btu per gallon, or Btu per 1,000 cubic feet) and the typical average heat value of the fuel; and

(5) the typical ranges of sulfur, ash, and moisture content of the fuel;

D. for fossil-fueled facilities:

(1) the estimated range of trace element emissions and the maximum emissions of sulfur dioxide, nitrogen oxides, and particulates in pounds per hour during operation at rated capacity; and

(2) the estimated range of maximum contributions to 24-hour average ground-level concentrations at specified distances from the stack of sulfur dioxide, nitrogen oxides, and particulates in micrograms per cubic meter during operation at rated capacity and assuming generalized worst-case meteorological conditions;

E. water use by the facility for alternate cooling systems, including:

(1) the estimated maximum use, including the groundwater pumping rate in gallons per minute and surface water appropriation in cubic feet per second;

(2) the estimated groundwater appropriation in million gallons per year; and

(3) the annual consumption in acre-feet;

F. the potential sources and types of discharges to water attributable to operation of the facility;

G. radioactive releases, including:

(1) for nuclear facilities, the typical types and amounts of radionuclides released by the facility in curies per year for alternate facility designs and levels of waste treatment; and

(2) for fossil-fueled facilities, the estimated range of radioactivity released by the facility in curies per year;

H. the potential types and quantities of solid wastes produced by the facility in tons per year at the expected capacity factor;

I. the potential sources and types of audible noise attributable to operation of the facility;

J. the estimated work force required for construction and operation of the facility; and

K. the minimum number and size of transmission facilities required to provide a reliable outlet for the generating facility.

Statutory Authority: *MS s 116J.10*

4220.3300 TRANSMISSION FACILITIES.

The applicant shall provide data for each alternative that would involve construction of an LHVTL. The following information shall be included:

A. for overhead transmission facilities:

(1) schematic diagrams that show the dimensions of the support structures and conductor configurations for each type of support structure that may be used;

(2) a discussion of the strength and distribution of the electric field attributable to the transmission facility, including the contribution of air ions if appropriate;

(3) a discussion of ozone and nitrogen oxide emissions attributable to the transmission facility;

(4) a discussion of radio and television interference attributable to the transmission facility; and

(5) a discussion of the characteristics and estimated maximum and typical levels of audible noise attributable to the transmission facilities;

B. for underground transmission facilities:

(1) the types and dimensions of the cable systems and associated facilities that would be used;

(2) the types and quantities of materials required for the cable system, including materials required for insulation and cooling of the cable; and

(3) the amount of heat released by the cable system in kilowatts per meter or cable length;

C. the estimated width of the right-of-way required for the transmission facility;

D. a description of construction practices for the transmission facility;

E. a description of operation and maintenance practices for the transmission facility;

F. the estimated work force required for construction and for operation and maintenance of the transmission facility; and

G. a narrative description of the major features of the region between the endpoints of the transmission facility. The region shall encompass the likely area for routes between the endpoints. The description should emphasize the area within three miles of the endpoints. The following information shall be described where applicable:

(1) hydrologic features including lakes, rivers, streams, and wetlands;

(2) natural vegetation and associated wildlife;

(3) physiographic regions; and

(4) landuse types, including human settlement, recreation, agricultural production, forestry production, and mineral extraction.

Statutory Authority: *MS s 116J.10*

4220.3400 THE ALTERNATIVE OF NO FACILITY.

The applicant shall provide the following information for the alternative of no facility:

A. a description of the expected operation of existing and committed generating and transmission facilities;

B. a description of the changes in resource requirements and wastes produced by facilities discussed in response to item A, including:

(1) the amount of land required;

(2) induced traffic;

(3) fuel requirements;

(4) airborne emissions;

(5) water appropriation and consumption;

(6) discharges to water;

(7) reject heat;

(8) radioactive releases;

(9) solid waste production;

(10) audible noise; and

(11) labor requirements; and

C. a description of equipment and measures that may be used to reduce the environmental impact of the alternative of no facility.

Statutory Authority: *MS s 116J.10*

MODIFICATIONS

4220.4100 CERTIFICATE OF NEED MODIFICATIONS.

Subpart 1. **Authority of director.** Issuance of a certificate of need may be made contingent upon modifications required by the director. When an application is denied, the director shall state the reasons for the denial.

Subp. 2. **Change of in-service date.** Applications for changes in in-service date for large generation and transmission facilities previously certified shall conform to the following:

A. If an applicant determines that a change in the in-service date is necessary for a large generation or transmission facility previously certified by the director, it shall inform the director of the desired change of date for in-service operation, accompanied by a written statement detailing the reasons for the proposed change. The director shall evaluate these reasons and within 45 days of receipt of the application, notify the applicant if the proposed change of in-service date is acceptable.

B. Delays in the in-service date of large generation or transmission facilities previously certified by the director for up to one year are not subject to review by the director. The applicant shall inform the director as soon as it determines that a delay is imminent, accompanied by a written statement detailing the reasons for such delay.

Subp. 3. **Small changes.** Small additions and subtractions to generating plant capacity and transmission line length shall conform to the following:

A. Power plant capacity additions and subtractions of less than 50 megawatts from the capacity approved in a certificate of need issued by the director shall not require recertification.

B. Large transmission line length modifications shall conform to the following:

(1) Large transmission line length additions or subtractions made as a result of the route length approved by the Minnesota Environmental Quality Board (MEQB) for projects previously certified shall not require recertification.

(2) If a utility applies to the MEQB for a transmission line route that is not expected to meet the definition of LHVTL in part 4220.0100, but at some time in the routing process it becomes apparent that the MEQB may approve a route that meets the definition, the utility may apply for a certificate of need as soon as possible after that time. The length of a route is determined by measuring the length of its center line.

Subp. 4. **Permissible fuel types.** When a certificate of need is granted for the proposed facility, or modification thereof, the director shall state which fuel types are not permitted in supplying the additional generation capacity certified.

Statutory Authority: *MS s 116J.10*