Kansas Administrative Regulations

Kansas Corporation Commission

Article 8.—Siting of Nuclear Generation Facilities

82-8-3. Requirements for applications.

Each application for a permit shall be accompanied by supporting documents as specified below and shall be assembled under topical sections corresponding to the subsections below, with index tabs for each section. The order and material to be included in each section shall be as follows: (a) An economic feasibility study on the proposed facility, setting forth the following:

(1) The estimated capital investment in the site, the proposed facility, and other related facilities;

(2) the anticipated source and the amount of funds to finance the project from each source;

(3) the period proposed for construction and the source of the labor force; and

(4) an economic comparison of the proposed facility and site, with other alternatives. The applicant shall include expansion at existing sites, as well as a discussion of power loss associated with the transmission distance, using a present-value revenue requirement comparison and a levelized mill per kilowatt-hour cost over the planning horizon with and without estimated cost escalation effects. This analysis shall compare the expected present value or the expected levelized cost with the proposed generation and transmission facility and without the proposed facility. The data used in developing this comparison shall be submitted in the format specified by the commission and shall be consistent with the data used in subsections (c) and (g);

(b) financial information sufficient to demonstrate the financial qualifications of the applicant to construct and operate the proposed facility. This information shall show that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated construction costs, the operating cost for the design lifetime of the facility, including related fuel costs, and the estimated costs of permanently shutting the facility down and maintaining it in a safe condition;

(c) information and data demonstrating the need for a facility, including the following:

(1) The power requirements for the applicant's electrical system for 10 years before the application date. These requirements shall include the following, at a minimum:

(A) Monthly peak demands;

(B) the date and hour of annual peak;

(C) annual load duration curves;

(D) annual energy requirements; and

(E) the purchases and sales at monthly peak, identified by purchaser and seller; and

(2) a schedule identifying by unit all of the applicant's existing generation facilities, including the following:

(A) The facility location and type, unit number, typical use, and fuel type;

(B) the net capacity;

(C) the on-line date;

(D) forced outage rates, including dates and duration of outage for the last five years;

(E) the annual capacity factor and equivalent availability factor for the last five years; and

(F) estimated unit deratings or projected retirement for 15 years and the reason for the derating. Projections shall be on a year-by-year basis;

(d) a general site description, which shall include the following:

(1) The proposed site location identified by section, township, range, and county, and the total number of acres involved;

(2) a state map, drawn to a scale not less than ½ inch equals 10 miles, showing the site location with respect to state, county, and other political subdivisions, and prominent features including cities, lakes, rivers, and highways;

(3) detailed maps, drawn to a scale not less than four inches equal one mile, showing the location of the facility perimeter, present and proposed utility development within three miles of the location, utility property abutting adjacent properties, nearby water bodies, wooded areas, farm settlements, parks and other public facilities; and

(4) the location of transmission substations and transmission lines associated with the proposed facility and interconnection with the applicant's electrical transmission system in Kansas;

(e) a general description of the proposed facility, which shall include the following:

(1) The principal design features;

(2) the expected operating and performance characteristics, including the following:

(A) the estimated maximum capacity of the facility;

(B) the estimated capacity if the facility is limited by condenser water;

(C) the estimated annual equivalent availability factors for each of the first five years of commercial operation;

(D) the estimated average operating heat rate (BTU/KWH) at 50%, 75%, and 100% of capacity;

(E) the estimated maintenance schedule for the first five years of commercial operation;

(F) the estimated gross generation, in megawatt hours, for each of the first five years of commercial operation;

(G) the estimated fraction of gross generation attributable to primary fuel for each of the first five years of commercial operation; and

(H) a schedule outlining the proposed plan for testing the unit for commercial operation including an approximate time schedule for this testing;

(3) the general arrangement of typical major structures and equipment by the use of scale plans and elevation drawings in sufficient number and detail to provide understanding of the general layout of the facility;

(4) extrapolation of any significant technology as represented by the design;

(5) the names and addresses, if known, of the prime contractors and major vendors for the project; and

(6) a time chart showing estimated engineering, construction, and start-up schedules for the proposed facility;

(f) approvals by other governmental agencies, according to the following:

(1) A list of all federal, state, and local permits, licenses, and certificates required for construction and operation of the facility, and the status of the application for approval of each. The applicant shall provide copies of all these documents, if issued;

(2) a list of all federal, state, and local government permits, licenses, and certificates required for the construction and operation of the facility in the following categories:

(A) Required before the expiration of the statutory time period for a determination concerning a site permit as provided in K.S.A. 66-1,162, and amendments thereto;

(B) required concurrent with the determination of the site permit by this commission; and

(C) required after a site permit determination by this commission; and

(3) copies submitted of all studies submitted to other agencies as directed by the commission;

(g) information on any transmission lines required to connect the proposed facility to the bulk power transmission network, including the following:

(1) The point or points at which facility transmission lines are planned for connection to the bulk power transmission network;

(2) the length, voltage, and capacity of any required new transmission line;

(3) the probable type of construction of any new line;

(4) a map, drawn to a scale not less than ½ inch equals 10 miles, showing the proposed route, and any alternate routes, for each transmission line necessary to connect the proposed facility with the bulk power transmission network;

(5) base case load flow studies as data is available from the Southwest Power Pool, of the existing Kansas interconnected electrical system for a year before the addition of the proposed facility of application modeled with the following:

(A) All Kansas interconnected loads simulated at 115 KV and higher bus;

(B) all out-of-state interconnected load flows simulated at the Kansas state line; and

(C) any unsatisfactory results highlighted;

(6) base case load flow studies of the existing Kansas interconnected electrical system modeled as specified in paragraphs (g)(5)(A) and (B) above, with the addition of the proposed generation and transmission facilities in one of the two years following

completion and biennially thereafter through the tenth year as data is available from the Southwest Power Pool; and

(7) a full explanation of the applicant's load forecasting technique as used in paragraphs (g)(5) and (6) above. The applicant shall include the following at a minimum:

(A) A study of 10 years of historical load growth. Data for each year shall be subdivided into actual or modeled simulation by residential, commercial, industrial, and other load components;

(B) a trending methodology and detailed explanation of it, making use of the historical load growth study and modifying the study results to account for trend changes caused by conservation, load management, price elasticity, econometrics, and additional factors that are themselves trend makers; and

(C) a load forecasting methodology incorporating the results of paragraph (g)(7)(B) above and a detailed explanation of it;

(h) data on the geology and seismology of the site and region surrounding the proposed site including the following:

(1) Maps and charts showing the topography, which shall include the following:

(A) A location map of the proposed structures, test holes, and excavation;

(B) a geologic map of rock types and structural features;

(C) geologic cross sections showing subsurface conditions; and

(D) a map, drawn to a scale not less than four inches equal one mile, showing bedrock contours where the site is covered by unconsolidated material;

(2) the physiographic significance of topographic features and their relationship to the regional pattern;

(3) the stratigraphic significance of the genesis, composition, extent, sequence, and correlation of rock units;

(4) the lithologic significance of the composition and textural character, including the results of any studies necessary to obtain a complete determination, of rock type and mineral composition;

(5) the subsurface structure showing faults, joints, distortion, alteration, weathering, slip planes, fissures, and cavities, and an explanation of the relationship of significant regional structure to site geology, including faulting;

(6) a description of soil types at the site;

(7) information concerning slope stability at the site; and

(8) copies of all studies or other bases used to furnish any information in this subsection;

(i) information on fuel to be used at the proposed facility, including the following:

(1) The specific type of fuel expected to be used; and

(2) a description of the method of fuel delivery to the site as well as the frequency of delivery that will be necessary;

(j) an evaluation of the effect on the environment, which shall be prepared for each alternative site for a new generating facility. The evaluation shall consider the following, at a minimum:

(1) The cultural, scenic, archaeological, and historical characteristics of the site; and

(2) the fauna and flora and, in particular, any endangered species existing in or traversing the site; and

(k) a discussion of the anticipated noise level of the proposed facility and the need and proposals for noise control.

(Authorized by K.S.A. 2001 Supp. 66-106; implementing K.S.A. 2001 Supp. 66-1,159; effective May 1, 1981; modified, L. 1981, ch. 425, May 1, 1981; amended Jan. 31, 2003.)