

**Rule 7. Guidelines for Integrated Resource Planning by an Electric Utility**

**170 IAC 4-7-1 Definitions**

Authority: IC 8-1-1-3

Affected: IC 8-1-2.2; IC 8-1-2.4; IC 8-1-8.5; IC 8-1.5

Sec. 1. (a) As used in this rule, "allowance" or "emission allowance" means the authority to emit one (1) ton of sulfur dioxide (SO<sub>2</sub>), as defined under Section 7651 of the Clean Air Act Amendments of 1990, 42 U.S.C. 7401 to 7671q, effective November 15, 1990.

(b) As used in this rule, "avoided cost" means the amount of fuel, operation, maintenance, purchased power, labor, capital, taxes, and other cost not incurred by a utility if an alternative supply or demand-side resource is included in the utility's integrated resource plan.

(c) As used in this rule, "Clean Air Act Amendments of 1990" or "CAAA" means Title IV, Acid Deposition Control, of the federal Clean Air Act Amendments of 1990, 42 U.S.C. 7401 to 42 U.S.C. 7671q, in effect November 15, 1990.

(d) As used in this rule, "cogeneration facility" means the following:

(1) A facility that simultaneously generates electricity and useful thermal energy and meets the energy efficiency standards established for a cogeneration facility by the Federal Energy Regulatory Commission (FERC) under 16 U.S.C. 824a-3, in effect November 9, 1978.

(2) The land, system, building, or improvement that is located at the project site and is necessary or convenient to the construction, completion, or operation of the facility.

(3) The transmission or distribution facility necessary to conduct the energy produced by the facility to a user located at or near the project site.

(e) As used in this rule, "commission" means the Indiana utility regulatory commission.

(f) As used in this rule, "conservation" means reducing the amount of energy consumed by a customer for a specific end-use. Conservation includes behavior changes such as thermostat setback. Conservation does not include changing the timing of energy use, switching to another fossil fuel source, or increasing off-peak usage.

(g) As used in this rule, "demand-side management" or "DSM" means the planning, implementation, and monitoring of a utility activity designed to influence customer use of electricity that produces a desired change in a utility's load shape. DSM includes only an activity that involves deliberate intervention by a utility to alter load shape.

(h) As used in this rule, "demand-side measure" means a particular end-use device, technology, service, or rate design at a targeted customer's premises or a utility's energy delivery system for a specific DSM program.

(i) As used in this rule, "demand-side program" means a utility program designed to implement a demand-side measure.

(j) As used in this rule, "demand-side resource" means a resource that reduces the demand for electrical power or energy by applying a demand-side program to implement one (1) or more demand-side measures.

(k) As used in this rule, "discount rate" means the interest rate used in determining the present value of future cash flows.

(l) As used in this rule, "dispersed generation" means electric generation technology that is relatively small in size, and its implementation favors installation near a load center or remote location on the subtransmission or distribution system.

(m) As used in this rule, "end-use" means the light, heat, cooling, refrigeration, motor drive, microwave energy, video or audio signal, computer processing, electrolytic process, or other useful work produced by equipment using electricity.

(n) As used in this rule, "energy efficiency improvement" means reduced energy use for a comparable level of energy service.

(o) As used in this rule, "energy service" means the light, heat, motor drive, and other service for which a customer purchases electricity from the utility.

(p) As used in this rule, "engineering estimate" means an estimate of energy (kWh) and demand (kW) impact resulting from a demand-side measure based on an engineering calculation procedure. An engineering estimate addresses change in energy use of a building or system resulting from installation of a DSM measure. If multiple DSM measures are installed, an engineering estimate accounts for the interactive effect between the DSM measures.

(q) As used in this rule, "firm wholesale power sale" means a power sale intended to be available to the purchaser at all times, including under adverse conditions, during the period covered by the commitment.

(r) As used in this rule, "hourly system lambda" means the change in a utility's total cost associated with a marginal change in hourly load. The hourly system lambda is a short run measure that reflects the change in fuel cost and includes incremental (or decremental) operation and maintenance expenses.

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(s) As used in this rule, "integrated resource planning", "plan" or "IRP" means a utility's assessment of a variety of demand-side and supply-side resources to cost-effectively meet customer electricity service needs. The IRP may also include, but is not limited to, the following:

(1) A public participation procedure.

(2) An analysis of the uncertainty and risk posed by different resources and external factors.

(t) As used in this rule, "load building" means a program intended to increase electricity consumption without regard to the timing of the increased usage.

(u) As used in this rule, "load research" means the collection of electricity usage data through a metering device associated with an end-use, a circuit, or a building. The metered data is used to better understand the characteristics of electric loads, the timing of their use, and the amount of electricity consumed by users. The data may be collected over a variety of time intervals, usually sixty (60) minutes or less.

(v) As used in this rule, "load shape" means the time pattern of customer electricity use and the relationship of the level of energy use to a specific time during the day, month, and year.

(w) As used in this rule, "lost opportunity" means a situation where a cost-effective demand-side measure could have been installed at a site during construction, renovation, or replacement of equipment, but was not, rendering a subsequent equal or more extensive modification to the site not cost-effective.

(x) As used in this rule, "non-utility generator" or "NUG" means a facility for generating electricity that:

(1) is not exclusively owned by a public utility;

(2) operates connected to an electric utility system; and

(3) sells electricity to a utility for resale to retail customers.

(y) As used in this rule, "participant" means a utility customer participating in a utility-sponsored DSM program.

(z) As used in this rule, "participant test" means a cost-effectiveness test that measures the difference between the cost incurred by a participant in a demand-side program and the value received by the participant. A participant's cost includes all costs borne by the participant. A participant's value from a DSM program consists of only the direct economic benefit received by the participant.

(aa) As used in this rule, "penetration" means the ratio of the number of a specific type of new units installed to the total number of new units installed during a given time.

(bb) As used in this rule, "present value" means today's value of a future payment, or stream of payments, discounted at some appropriate compound interest or discount rate.

(cc) As used in this rule, "program cost" means all expenses incurred by a utility in a given year for operation of a DSM program whether the cost is capitalized or expensed. An expense includes, but is not limited to, the following:

(1) Administration.

(2) Equipment.

(3) Incentives paid to program participants.

(4) Marketing and advertising.

(5) Monitoring and evaluation.

(dd) As used in this rule, "public participation" means a procedure where a customer or interested party is provided the opportunity to comment on a utility's integrated resource plan prior to the submission of the IRP to the commission.

(ee) As used in this rule, "ratepayer impact measure" or "RIM" test means a cost-effectiveness test which analyzes how a rate for electricity is altered by implementing a DSM program. This test measures the change in a revenue requirement expressed on a per unit of sale basis.

(ff) As used in this rule, "renewable resource" means a generation facility or technology utilizing a fuel source such as, but not limited to, the following:

(1) Wind.

(2) Solar.

(3) Geothermal.

(4) Waste.

(5) Biomass.

(6) Small hydro.

(gg) As used in this rule, "resource" means a facility, project, contract, or other mechanism used by a utility to provide electric energy service to the customer.

(hh) As used in this rule, "saturation" means the ratio of the number of a specific type of similar appliance or equipment to

the total number of customers in that class or the total number of similar appliances or equipment in use.

(ii) As used in this rule, "screening" means an evaluation performed by a utility to determine whether a demand-side or supply-side resource option is eligible for potential inclusion in the utility's integrated resource plan.

(jj) As used in this rule "self-generation" means an electric generation facility primarily for the customer's own use and not for the primary purpose of producing electricity, heat, or steam for sale to or for the public for compensation.

(kk) As used in this rule, "short term action plan" means a schedule of activities and goals developed by a utility to begin efficient implementation of its integrated resource plan.

(ll) As used in this rule, "standard industrial classification" or "SIC" means a system developed by the United States Department of Commerce for use in the classification of establishments by type of activity in which engaged, for purposes of facilitating the collection, tabulation, presentation and analysis of data relating to establishments, and for promoting uniformity and comparability in the presentation of statistical data collected by various agencies of the United States Government, state agencies, trade associations, and private research organizations.

(mm) As used in this rule, "supply-side resource" means a resource that provides a supply of electrical energy or capacity, or both, to a utility. A supply-side resource includes the following:

- (1) A utility-owned generation capacity addition.
- (2) A wholesale power purchase from another utility or non-utility generator.
- (3) A refurbishment or upgrading of an existing utility-owned generating facility.
- (4) A cogeneration facility.
- (5) A renewable resource technology.

(nn) As used in this rule, "targeted demand-side management" or "targeted DSM" means a demand-side program designed to defer or eliminate investment in a transmission or distribution facility.

(oo) As used in this rule, "total resource cost test" means a cost-effectiveness test that eliminates the distinction between a participant and nonparticipant by analyzing whether a resource is cost-effective based on the total cost and benefit of the program, independent of the precise allocation to a shareholder, ratepayer, and participant.

(pp) As used in this rule, "utility" means:

- (1) a public, municipally owned, or cooperatively owned utility; or
- (2) a joint agency created under IC 8-1-2.2.

(qq) As used in this rule, "utility cost test" or "revenue requirements test" means a cost-effectiveness test designed to minimize the net present value of a utility's revenue requirements. (*Indiana Utility Regulatory Commission; 170 IAC 4-7-1; filed Aug 31, 1995, 9:00 a.m.: 19 IR 16; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA*)

#### **170 IAC 4-7-2 Effects of filing integrated resource planning**

Authority: IC 8-1-1-3

Affected: IC 5-14-3; IC 8-1-1-8; IC 8-1-8.5; IC 8-1.5

Sec. 2. (a) The commission may use an IRP or written comments, or both, submitted pursuant to this rule, to assist in the preparation of an analysis of the long range needs for expansion of facilities for the generation of electricity and plan for meeting the future requirements of electricity as required by IC 8-1-8.5. The commission may also use the IRP or written comments, or both, submitted pursuant to this rule in the preparation of a staff report in other formally docketed proceedings.

(1) An IRP or written comments submitted to the commission pursuant to this rule may be admitted as evidence in a formally docketed proceeding before the commission under the Indiana Rules of Evidence.

(2) The commission shall give such weight as it determines appropriate to any IRP, or written comments submitted to the commission thereon, admitted as evidence in a formally docketed proceeding as provided in subsection 2(a)(1) [subdivision (1)] above.

(3) An IRP or comments submitted pursuant to this rule may not be admitted as evidence in a formally docketed proceeding before the commission through use of 170 IAC 1-1-18(f).

(b) Notice of the submission of an IRP to the commission shall be provided pursuant to the publication requirements of IC 8-1-1-8.

(c) Contemporaneously with the submission of an IRP to the commission, a utility must include the following information:

- (1) The name and address, if known, of each individual or entity considered by the utility to be an interested party.

(2) A statement that the utility has sent each interested party, by deposit in the United States mail, First Class postage prepaid, a notice of the utility's submission of an IRP to the commission. The notice must contain, at a minimum, the following information:

- (A) A general description of the subject matter of the submitted IRP.
- (B) A statement that the commission invites an interested party to submit written comment on the utility's submitted IRP.
- (C) A statement that the commission will provide notice of the IRP and the due date for the submission of written comments pursuant to the publication requirements of IC 8-1-1-8. The statement must also include that subsection (e) below provides for a ninety (90) day time period, or longer as determined by the commission, to submit written comments.

A utility is not required to separately notice, as provided in this subsection, each of its customers. A utility may, however, individually notify a business, organization, or a particular customer having a substantial interest in the IRP.

(3) A statement that the utility has served a copy of the IRP on the office of the consumer counselor.

(d) An IRP submitted to the commission may be viewed, inspected, or copied, in accordance with IC 5-14-3, at the office of the commission at 101 West Washington Street, Suite 1500 E, Indianapolis, Indiana 46204.

(e) A customer or interested party may comment on an IRP submitted to the commission. The comments must be in writing and received by the commission within ninety (90) days from the date a utility submits an IRP to the commission. A customer or interested party must:

- (1) submit to the commission, at the address provided in subsection (d), an original and eight (8) copies of the written comments;
- (2) clearly identify the utility upon which written comments are submitted; and
- (3) when submitting written comments on an IRP, serve a copy of the comments upon the utility.

The commission may extend the filing deadline for submitting written comments.

(f) Upon the receipt of written comments of a customer or interested party, a utility may submit to the commission supplemental or response comments. Supplemental or response comments must be in writing and received by the commission within thirty (30) days from the date a customer or interested party submits comments to the commission. A utility must:

- (1) submit to the commission, at the address provided in subsection (d), an original and eight (8) copies of the supplemental or response comments; and
- (2) serve a copy of the supplemental or response comments upon the customer or interested party who submitted written comments and the office of the consumer counselor.

The commission may extend the filing deadline for submitting supplemental or response comments.

(g) The commission may allow additional written comment periods.

(h) The failure of an interested party to file comments pursuant to subsection (e) shall not constitute a waiver of any right to participate as a party or to advance any argument or position in a formally docketed proceeding before the commission. Similarly, the content of comments filed by an interested party under subsection (e) shall not estop or preclude that party from advancing any argument or position in a formally docketed proceeding before the commission, whether or not that argument or position was raised in comments submitted under subsection (e). (*Indiana Utility Regulatory Commission; 170 IAC 4-7-2; filed Aug 31, 1995, 9:00 a.m.: 19 IR 18; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA; errata filed Jul 21, 2009, 1:33 p.m.: 20090819-IR-170090571ACA*)

### **170 IAC 4-7-3 Applicability**

Authority: IC 8-1-1-3

Affected: IC 5-14-3; IC 8-1-2-29; IC 8-1-2.2; IC 8-1-8.5-7; IC 8-1.5

Sec. 3. (a) To assist the commission in its administration of the Utility Powerplant Construction Law, IC 8-1-8.5, this rule applies to the following:

- (1) A public, municipally owned, or cooperatively owned utility.
- (2) A joint agency created under IC 8-1-2.2. An individual member of a joint agency is not required to submit to the commission a separate integrated resource plan.
- (b) This rule does not apply to a person who is exempt pursuant to IC 8-1-8.5-7.

(c) A utility operating or owning, in part or whole, an electrical generating facility as of January 1, 1995, to provide electric service within the state of Indiana must submit to the commission on a biennial basis, beginning on or before November 1, 1995,

an integrated resource plan consistent with this rule. Upon request of a utility, the commission may grant an extension of any such submission dates, for good cause shown.

(d) A utility not subject to subsection (c) prior to constructing, purchasing, or leasing a generating facility to provide electric service within the state of Indiana must submit to the commission an integrated resource plan consistent with this rule. If the generating facility, after appropriate commission review, is constructed, purchased, or leased, the utility shall submit to the commission on a biennial basis, an integrated resource plan consistent with this rule.

(e) A utility subject to subsection (a) must submit to the commission, on or before the applicable date as specified in subsection (c) or (d), the following documents:

(1) The integrated resource plan.

(2) A technical appendix containing supporting documentation.

(f) If a utility considers information in the IRP or technical appendix to be proprietary or otherwise confidential, a utility must file concurrently a redacted version, a nonredacted version under seal which shall be treated as confidential pending completion of the proceeding described below, verified affidavits from appropriate representatives of the utility setting forth the reasons why the information is proprietary or otherwise confidential, and a petition requesting that the commission find that such information is confidential pursuant to IC 8-1-2-29 and IC 5-14-3. A customer or interested party seeking access to or desiring to contest a commission determination regarding information claimed by a utility to be proprietary and confidential may do so only through intervention and participation in the proceeding on the utility petition requesting a finding of confidentiality. If, after review, the commission determines the information is proprietary or confidential, the commission and its staff will treat the information as proprietary or confidential in accordance with IC 8-1-2-29 and IC 5-14-3. (*Indiana Utility Regulatory Commission; 170 IAC 4-7-3; filed Aug 31, 1995, 9:00 a.m.: 19 IR 19; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA*)

#### **170 IAC 4-7-4 Methodology and documentation requirements**

Authority: IC 8-1-1-3; IC 8-1-8.5

Affected: IC 8-1; IC 8-1.5

Sec. 4. An IRP covering at least a twenty (20) year future period prepared by a utility must include a discussion of the methods, models, data, assumptions, and definitions used in developing the IRP and the goals and objectives of the plan. The following information must be included:

(1) The data sets, including data sources, used to establish base and alternative forecasts. A third party data source may be presented in the form of a reference. The reference must include the source title, author, publishing address, date, and page number of relevant data. The data sets must include an explanation for adjustments. The data must be provided on electronic media and hard copy, or as specified by the commission.

(2) A description of the utility's effort to develop and maintain, by customer class, rate class, SIC code, and end-use, a data base of electricity consumption patterns. The data base may be developed using, but not limited to, the following methods:

(A) Load research developed by the individual utility.

(B) Load research developed in conjunction with another utility.

(C) Load research developed by another utility and modified to meet the characteristics of that utility.

(D) Engineering estimates.

(E) Load data developed by a non-utility source.

(3) A proposed schedule for industrial, commercial, and residential customer surveys to obtain data on end-use appliance penetration, end-use saturation rates, and end-use electricity consumption patterns.

(4) A discussion of customer self-generation within the service territory and the potential effects on generation, transmission, and distribution planning and load forecasting.

(5) A description of model structure and an evaluation of model performance.

(6) A complete discussion of the alternative forecast scenarios developed and analyzed, including a justification of the assumptions and modeling variables used in each scenario.

(7) A description of the fuel inventory and procurement planning practices, including the rationale, used in the development of the utility's integrated resource plan.

(8) A description of the SO<sub>2</sub> emission allowance inventory and procurement planning practices, including the rationale, used in the development of the utility's integrated resource plan.

- (9) A description of the generation expansion planning criteria used in developing the integrated resource plan. The description must fully explain the basis for the criteria selected, including an analysis and rationale for the level of system wide generation reliability assumed in the IRP.
- (10) A regional, or at a minimum, Indiana specific power flow study prepared by a regional or subregional organization. This requirement may be met by submitting Federal Energy Regulatory Commission (FERC) Form 715, as adopted in Docket No. RM93-10-00, in effect October 30, 1993. The power flow study shall include the following:
- (A) Solved real flows.
  - (B) Solved reactive flows.
  - (C) Voltages.
  - (D) Detailed assumptions.
  - (E) Brief description of the model(s).
  - (F) Glossary of terms with cross references to the names of buses and line terminals.
  - (G) Sensitivity analysis, including, but not limited to, the forecast of the following:
    - (i) Summer and winter peak conditions.
    - (ii) Light load as well as heavy transfer conditions for one (1), two (2), five (5), and ten (10) years out.
    - (iii) Branch circuit ratings, including, but not limited to, normal, long term, short term, and emergency.
- (11) Any recent dynamic stability study prepared for the utility or by the utility. This requirement may be met by submitting FERC Form 715, as adopted in Docket No. RM93-10-00, in effect October 30, 1993.
- (12) Applicable transmission maps. This requirement may be met by submitting FERC Form 715, as adopted in Docket No. RM93-10-00, in effect October 30, 1993.
- (13) A description of reliability criteria for transmission planning as well as the assessment practice used. This requirement may be met by submitting FERC Form 715, as adopted in Docket No. RM93-10-00, in effect October 30, 1993.
- (14) An evaluation of the reliability criteria in relation to present performance and the expected performance of the utility's transmission system. This requirement may be met by submitting FERC Form 715, as adopted in Docket No. RM93-10-00, in effect October 30, 1993.
- (15) A description of the utility's effort to develop and improve the methodology and the data for evaluating a resource (supply-side or demand-side) option's contribution to system wide reliability. The measure of system wide reliability must cover the reliability of the entire system, including transmission, distribution, and generation.
- (16) An explanation, with supporting documentation, of the avoided cost calculation. An avoided cost must be calculated for each year in the forecast period. The avoided cost calculation must reflect timing factors specific to the resource under consideration such as project life and seasonal operation. Avoided cost shall include, but is not limited to, the following:
- (A) The avoided generating capacity cost adjusted for transmission and distribution losses and the reserve margin requirement.
  - (B) The avoided transmission capacity cost.
  - (C) The avoided distribution capacity cost.
  - (D) The avoided operating cost, including fuel, plant operation and maintenance, spinning reserve, emission allowances, and transmission and distribution operation and maintenance.
- (17) The hourly system lambda and the actual demand for all hours of the most recent historical year available. For purposes of comparison, a utility must maintain three (3) years of hourly data and the corresponding dispatch logs.
- (18) A description of the utility's public participation procedure if the utility conducts a procedure prior to the submission of an IRP to the commission.

*(Indiana Utility Regulatory Commission; 170 IAC 4-7-4; filed Aug 31, 1995, 9:00 a.m.: 19 IR 20; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA)*

**170 IAC 4-7-5 Energy and demand forecasts**

Authority: IC 8-1-1-3

Affected: IC 8-1-8.5; IC 8-1.5

Sec. 5. (a) An electric utility subject to this rule shall prepare an analysis of historical and forecasted levels of peak demand and energy usage which includes the following:

- (1) An historical and projected analysis of a variety of load shapes, including, but not limited to, the following:

- (A) Annual load shapes.
  - (B) Seasonal load shapes.
  - (C) Monthly load shapes.
  - (D) Selected weekly and daily load shapes. Daily load shapes shall include, at a minimum, summer and winter peak days and a typical weekday and weekend day.
- (2) Historical and projected load shapes shall be disaggregated, to the extent possible, by customer class, interruptible load, and end-use and demand-side management program.
  - (3) Disaggregation of historical data and forecasts by customer class, interruptible load, and end-use where information permits.
  - (4) The use and reporting of actual and weather normalized energy and demand levels.
  - (5) A discussion of all methods and processes used to normalize for weather.
  - (6) A twenty (20) year period for energy and demand forecasts.
  - (7) An evaluation of the performance of energy and demand forecasts for the previous ten (10) years, including, but not limited to, the following:
    - (A) Total system.
    - (B) Customer classes or rate classes, or both.
    - (C) Firm wholesale power sales.
  - (8) If an end-use methodology has not been used in forecasting, an explanation as to why this methodology has not been used.
  - (9) For purposes of section 5(a)(1) and 5(a)(2) [subdivisions (1) and (2)], a utility may use utility specific data or more generic data, such as, but not limited to, the types of data described in section 4(2) of this rule.
  - (b) A utility shall provide at least three (3) alternative forecasts of peak demand and energy usage. At a minimum, the utility shall include high, low, and most probable energy and peak demand forecasts based on combinations of alternative assumptions such as:
    - (1) Rate of change in population.
    - (2) Economic activity.
    - (3) Fuel prices.
    - (4) Changes in technology.
    - (5) Behavioral factors affecting customer consumption.
    - (6) State and federal energy policies.
    - (7) State and federal environmental policies.

*(Indiana Utility Regulatory Commission; 170 IAC 4-7-5; filed Aug 31, 1995, 9:00 a.m.: 19 IR 21; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA)*

**170 IAC 4-7-6 Resource assessment**

Authority: IC 8-1-1-3

Affected: IC 8-1-8.5; IC 8-1.5

Sec. 6. (a) For each year of the planning period, excluding subsection 6(a)(6) [subdivision (6)], recognizing the potential effects of self-generation, an electric utility shall provide a description of the utility's electric power resources that must include, at a minimum, the following information:

- (1) The net dependable generating capacity of the system and each generating unit.
- (2) The expected changes to existing generating capacity, including, but not limited to, the following:
  - (A) Retirements.
  - (B) Deratings.
  - (C) Plant life extensions.
  - (D) Repowering.
  - (E) Refurbishment.
- (3) A fuel price forecast by generating unit.
- (4) The significant environmental effects, including:
  - (A) air emissions;
  - (B) solid waste disposal;

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- (C) hazardous waste; and
- (D) subsequent disposal;

at each existing fossil fueled generating unit.

(5) The scheduled power import and export transactions, both firm and nonfirm, as well as cogeneration and non-utility production expected to be available for purchase by the utility.

(6) An analysis of the existing utility transmission system that includes the following:

- (A) An evaluation of the adequacy to support load growth and long term power purchases and sales.
- (B) An evaluation of the supply-side resource potential of actions to reduce transmission losses.
- (C) An evaluation of the potential impact of demand-side resources on the transmission network.
- (D) An assessment of the transmission component of avoided cost.

(7) A discussion of demand-side programs, including existing company-sponsored and government-sponsored or mandated energy conservation or load management programs available in the utility's service area and the estimated impact of those programs on the utility's historical and forecasted peak demand and energy.

(b) An electric utility shall consider alternative methods of meeting future demand for electric service. A utility must consider a demand-side resource, including innovative rate design, as a source of new supply in meeting future electric service requirements. The utility shall consider a comprehensive array of demand-side measures that provide an opportunity for all ratepayers to participate in DSM, including low-income residential ratepayers. For a utility-sponsored program identified as a potential demand-side resource, the utility's plan shall, at a minimum, include the following:

- (1) A description of the demand-side program considered.
- (2) A detailed account of utility strategies designed to capture lost opportunities.
- (3) The avoided cost projection on an annual basis for the forecast period that accounts for avoided generation, transmission, and distribution system costs. The avoided cost calculation must reflect timing factors specific to resources under consideration such as project life and seasonal operation.
- (4) The customer class or end-use, or both, affected by the program.
- (5) A participant bill reduction projection and participation incentive to be provided in the program.
- (6) A projection of the program cost to be borne by the participant.
- (7) Estimated energy (kWh) and demand (kW) savings per participant for each program.
- (8) The estimated program penetration rate and the basis of the estimate.
- (9) The estimated impact of a program on the utility's load, generating capacity, and transmission and distribution requirements.

(c) A utility shall consider supply-side resources as an alternative in meeting future electric service requirements. The utility's plan shall include, at a minimum, the following:

- (1) Identify and describe the resource considered, including the following:
  - (A) Size (MW).
  - (B) Utilized technology and fuel type.
  - (C) Additional transmission facilities necessitated by the resource.
- (2) Significant environmental effects, including the following:
  - (A) Air emissions.
  - (B) Solid waste disposal.
  - (C) Hazardous waste and subsequent disposal.

(3) An analysis of how a proposed generation facility conforms with the utility-wide plan to comply with the Clean Air Act Amendments of 1990.

(4) A discussion of the utility's effort to coordinate planning, construction, and operation of the supply-side resource with other utilities to reduce cost.

(d) A utility shall identify transmission and distribution facilities required to meet, in an economical and reliable manner, future electric service requirements. The plan shall, at a minimum, include the following:

- (1) An analysis of transmission network capability to reliably support the loads and resources placed upon the network.
- (2) A list of the principal criteria upon which the design of the transmission network is based. Include an explanation of the principal criteria and their significance in identifying the need for and selecting transmission facilities.
- (3) A description of the timing and types of expansion and alternative options considered.
- (4) The approximate cost of expected expansion and alteration of the transmission network.

*(Indiana Utility Regulatory Commission; 170 IAC 4-7-6; filed Aug 31, 1995, 9:00 a.m.; 19 IR 22; readopted filed Jul 11, 2001, 4:30*

*p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA)*

**170 IAC 4-7-7 Selection of future resources**

Authority: IC 8-1-1-3

Affected: IC 8-1-8.5; IC 8-1.5

Sec. 7. (a) In order to eliminate nonviable alternatives, a utility shall perform an initial screening of all future resource alternatives listed in sections 6(b) through (c) of this rule. The utility's screening process and the decision to reject or accept a resource alternative for further analysis must be fully explained and supported.

(b) Integrated resource planning includes one (1) or more tests used to evaluate the cost-effectiveness of a demand-side resource option. A cost-benefit analysis must be performed using the following tests except as provided under subsection (e):

- (1) Participant.
- (2) Ratepayer impact measure (RIM).
- (3) Utility cost (UC).
- (4) Total resource cost (TRC).
- (5) Other reasonable tests accepted by the commission.

(c) A utility is not required to express a test result in a specific format. However, a utility must, in all cases, calculate the net present value of the program impact over the life cycle of the impact. A utility shall also explain the rationale for choosing the discount rate used in the test.

(d) A utility is required to:

- (1) specify the components of the benefit and the cost for each of the major tests; and
- (2) identify the equation used to express the result.

(e) If a reasonable cost-effectiveness analysis for a demand-side management program cannot be performed using the tests in subsection (b), where it is difficult to establish an estimate of load impact, such as a generalized information program, the cost-effectiveness tests are not required.

(f) To determine cost-effectiveness, the RIM test must be applied to a load building program. A load building program shall not be considered as an alternative to other resource options. (*Indiana Utility Regulatory Commission; 170 IAC 4-7-7; filed Aug 31, 1995, 9:00 a.m.: 19 IR 23; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA*)

**170 IAC 4-7-8 Resource integration**

Authority: IC 8-1-1-3

Affected: IC 8-1-8.5; IC 8-1.5

Sec. 8. A utility shall select a mix of resources consistent with the objectives of the integrated resource plan. The utility must provide the commission, at a minimum, the following information:

- (1) Describe the utility's resource plan.
- (2) Identify the variables, standards of reliability, and other assumptions expected to have the greatest effect on the least-cost mix of resources.
- (3) Determine the present value revenue requirement of the utility's resource plan, stated in total dollars and in dollars per kilowatt-hour delivered, with the discount rate specified.
- (4) Demonstrate that the utility's resource plan utilizes, to the extent practical, all economical load management, conservation, nonconventional technology relying on renewable resources, cogeneration, and energy efficiency improvements as sources of new supply.
- (5) Discuss how the utility's resource plan takes into account the utility's judgment of risks and uncertainties associated with potential environmental and other regulations.
- (6) Demonstrate that the most economical source of supply-side resources has been included in the integrated resource plan.
- (7) Discuss the utility's evaluation of dispersed generation and targeted DSM programs including their impacts, if any, on the utility's transmission and distribution system for the first ten (10) years of the planning period.
- (8) Discuss the financial impact on the utility of acquiring future resources identified in the utility's resource plan. The discussion shall include, where appropriate, the following:

- (A) The operating and capital costs of the integrated resource plan.
  - (B) The average price per kilowatt-hour as calculated in the resource plan. The price must be consistent with the electricity price assumption used to forecast the utility's expected load by customer class in section 5 of this rule.
  - (C) An estimate of the utility's avoided cost for each year of the plan.
  - (D) The impact of a planned addition to supply-side or demand-side resources on the utility's rate.
  - (E) The utility's ability to finance the acquisition of a required new resource.
- (9) Identify and explain assumptions concerning existing and proposed regulations, laws, practices, and policies made concerning decisions used in formulating the IRP.
- (10) Demonstrate, to the extent practicable and reasonable, that the utility's resource plan incorporates a workable strategy for reacting to unexpected changes. A workable strategy is one that allows the utility to adapt to unexpected circumstances and preserves the plan's ability to achieve its intended purpose. Unexpected changes include, but are not limited to, the following:
- (A) The demand for electric service.
  - (B) The cost of a new supply-side or demand-side technology.
  - (C) Other factors which would cause the forecasted relationship between supply and demand for electric service to be in error.

*(Indiana Utility Regulatory Commission; 170 IAC 4-7-8; filed Aug 31, 1995, 9:00 a.m.: 19 IR 23; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA)*

**170 IAC 4-7-9 Short term action plan**

Authority: IC 8-1-1-3  
Affected: IC 8-1-8.5; IC 8-1.5

Sec. 9. A short term action plan shall be prepared as part of the utility's IRP filing or separately, and shall cover each of the two (2) years beginning with the IRP submitted pursuant to this rule. The short term action plan is a summary of the resource options or programs contained in the utility's current integrated resource plan where the utility must take action or incur expenses during the two (2) year period. The short term action plan must include, but is not limited to, the following:

- (1) A description of each resource option or program included in the short term action plan. The description must include, but is not limited to, the following:
- (A) The objective of the resource option or program.
  - (B) The criteria for measuring progress toward the objective.
  - (C) The actual progress toward the objective to date.
- (2) The participation of small business in the implementation of a DSM resource option or program.
- (3) The implementation schedule for the resource option or program.
- (4) The timetable for implementation and resource acquisition.
- (5) A detailed budget for the cost to be incurred for each resource or program.

*(Indiana Utility Regulatory Commission; 170 IAC 4-7-9; filed Aug 31, 1995, 9:00 a.m.: 19 IR 24; readopted filed Jul 11, 2001, 4:30 p.m.: 24 IR 4233; readopted filed Apr 24, 2007, 8:21 a.m.: 20070509-IR-170070147RFA)*

**Rule 8. Guidelines for Demand-Side Cost Recovery by Electric Utilities**

**170 IAC 4-8-1 Definitions**

Authority: IC 8-1-1-3  
Affected: IC 8-1-2.2; IC 8-1-8.5; IC 8-1.5

Sec. 1. (a) As used in this rule, "allowance for funds used during construction" or "AFUDC" means the cost of borrowed funds used for capital expenditures associated with a utility-sponsored DSM program, and a reasonable rate on other funds when so used. AFUDC for capital expenditures shall be recorded in separate subaccounts or their subdivisions in accordance with the FERC or NARUC uniform system of accounts.

(b) As used in this rule, "avoided cost" means the amount of fuel, operation, maintenance, purchased power, labor, capital, taxes, and other cost not incurred by a utility if an alternative supply or demand-side resource is included in the utility's integrated resource plan.