# BAL-502-RFC-01 Mapping to Proposed BAL-502-RFC-02

| BAL-502-RFC-01 Requirements | | BAL-502-RFC-02 Requirements | |
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| R1 | The Loss of Load Expectation (LOLE) for any load in RFC due to resource inadequacy shall not exceed one occurrence in ten years. This requirement applies to all PRSGs within RFC | R2.1 | Calculate a Planning reserve margin that will result in the sum of the probabilities for loss of load for the integrated peak hour for at least all non-holiday weekdays for each planning year being equal to 0.1. (This is comparable to a 1 day in 10 year criterion). |
| R2 | Each LSE | | |
| R2.1 | shall be a member of a PRSG for determining its resource planning reserve requirements. Membership in PRSGs must recognize interconnected system arrangements and are subject to verification by RFC. | R1 | Each LSE shall be a member of one or more PRSGs so that all its load in the RFC footprint is included in a PRSG and no load is included more than once *[Violation Risk Factor: Lower]*. |
| R2.2 | shall report to RFC within 90 days of the effective date of BAL-502-RFC-01 which PRSG is responsible for determining its resource planning reserve requirements. In addition, if a LSE changes the PRSG that is responsible for determining its resource planning reserve requirements, the LSE shall notify RFC at least 90 days prior to the proposed change or 180 days prior to the planning period under review, whichever is greater. | R1.1 | Each LSE that has not reported to RFC its membership in a PRSG, as of the effective date, shall report to RFC within 90 days to which PRSG it belongs. |
| | | R1.2 | Each LSE shall notify RFC at least 90 days prior to a proposed PRSG membership change or 180 days prior to the planning period under review, whichever is earlier. |
| R3 | Resource Planning Reserve Requirement analyses performed by each PRSG shall: | | |
| R3.1 | be performed or verified annually | R2 | The PRSG shall perform and document a Resource Adequacy analysis annually. The Resource Adequacy analysis shall [Violation Risk Factor: Medium]: |
| | | R2.2.1 | Perform an analysis for Year One. |
| | | R2.2.2.1 | If the analysis is verified, the verification must be supported by current or past studies for the same planning year. |
| R3.2 | express resource planning reserve requirements as a percentage of the 50:50 probability forecast peak load (Reserve Margin). | R2.1.2 | The planning reserve developed from R2.1 shall be expressed as a percentage of the Median (50:50) forecast peak Net Internal Demand (planning reserve margin). |
| R3.3 | determine a resource planning reserve requirement for each of the PRSG members for the upcoming planning year as defined by the PRSG. | R2.2.3 | The annual peak period for Resource Adequacy analysis shall be determined by the PRSG. |
| | | R2.1 | Calculate a Planning reserve margin that will result in the sum of the probabilities for loss of load for the integrated peak hour for at least all non-holiday weekdays for each planning year being equal to 0.1. (This is comparable to a 1 day in 10 year criterion). |

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| | | R2.2.1 | Perform an analysis for Year One. |

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| R3.4 | be performed or verified for the nine subsequent planning years to provide information for long-term resource planning without establishing specific resource planning reserve requirements | R2.2 | Be performed or verified separately for individual years of Year One through Year Ten. Year One is defined as the planning year that begins with the upcoming annual peak period. | |
| | | R2.2.2 | Perform an analysis or verification at a minimum for one year in the 2 through 5 year period and at a minimum one year in the 6 though 10 year period. | |
| | | R2.6 | Document that the resource capacity is not counted more than once, as reserve, by multiple PRSGs. | |
| | | R3 | The PRSG shall annually document a comparison of its load and resource capability for each of the years in the ten year period in R2.2 with the planning reserve margin benchmark in R2.1.2 [Violation Risk Factor: Medium]. | |
| R3.5 | model a “loss-of-load event” as system conditions before taking emergency actions (e.g. unplanned voltage reductions or public appeals) but including system conditions subsequent to taking planned contractual actions (e.g. direct control load management). | R2.1.1 | The calculation shall be performed using the Net Internal Demand | |
| | | R2.4 | · Any other Demand (Load) Response Programs not included in R2.4.1. | |
| R3.6 | consider the availability of all generating units within the PRSG committed to meet the adequacy of Group load. At a minimum, the calculations must consider the following characteristics of the generating unit population: | | | |
| R3.6.1 | Historic generating unit performance and any projected changes | R2.3.2 | · Historic resource performance and any projected changes | |
| | | R2.4 | · Sensitivity to resource outage rates and resource capabilities. | |
| R3.6.2 | Generating unit seasonal ratings | R2.3.2 | · Seasonal resource ratings | |
| R3.6.3 | The population of units deemed “typical” for compiling the history to determine generating performance statistics for new units | | | Requirement in BAL-502-RFC-01 not explicitly included in BAL-502-RFC-02 |
| R3.6.4 | Projected planned generator outages and maintenance schedules | R2.3.2 | · Resource planned outage schedules, deratings, and retirements. | |
| R3.6.5 | Fuel limitations, wind or hydro energy limitations or other reasons for limited dispatchability of generators | R2.3.2 | · Modeling assumptions of intermittent and energy limited resource such as wind and cogeneration. | |
| | | R2.4 | · Availability and deliverability of fuel. | |
| | | R2.4 | · Impacts of extreme weather/drought conditions that affect unit availability. | |

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| R3.6.6 | Common mode outages that effect resource adequacy | R2.4 | · Common mode outages that affect Resource availability | |
| R3.6.7 | Availability of Resources with Environmental or Regulatory Restrictions | R2.4 | · Environmental or regulatory restrictions of resource availability. | |
| R3.7 | consider the characteristics of other resources within the PRSG committed to meet the adequacy of Group load. At a minimum, the calculations must consider the following: | | | |
| R3.7.1 | Limitations such as notice, buy-through provisions, duration, or frequency | | | Requirement in BAL-502-RFC-01 not explicitly included in BAL-502-RFC-02 |
| R3.7.2 | How it is dispatched | | | Requirement in BAL-502-RFC-01 not explicitly included in BAL-502-RFC-02 |
| R3.7.3 | Physical characteristics such as weather, cold load pickup, etc | | | Requirement in BAL-502-RFC-01 not explicitly included in BAL-502-RFC-02 |
| R3.8 | consider the characteristics of load, such as the following: | | | |
| R3.8.1 | Load diversity | R2.3.1 | · Load diversity. | |
| R3.8.2 | Seasonal load variation | R2.3.1 | · Seasonal load variations. | |
| R3.8.3 | Load variability due to weather, regional economic forecasts, etc. | R2.3.1 | · Median (50:50) forecast peak load. | |
| | | R2.3.1 | · Load variability due to weather, regional economic forecasts, etc. | |
| | | R2.3.1 | · Daily demand modeling assumptions (firm, interruptible). | |
| R3.8.4 | Load forecast uncertainty | R2.3.1 | · Load forecast uncertainty. | |
| R3.8.5 | Contractual arrangements concerning load shedding agreements among PRSG members | R2.3.1 | · Contractual arrangements concerning curtailable/interruptible load. | |
| R3.9 | shall base the LOLE calculation on a methodology employing the sum of the daily loss of load probabilities | R2.1 | Calculate a Planning reserve margin that will result in the sum of the probabilities for loss of load for the integrated peak hour for at least all non-holiday weekdays for each planning year being equal to 0.1. (This is comparable to a 1 day in 10 year criterion). | |

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| R3.10 | consider the benefit of interconnections to other entities outside the PRSG recognizing transmission limitations and the likelihood of capacity resources being available to the PRSG when needed | R2.3.2 | · Modeling assumptions of firm capacity purchases from and sales to entities outside the PRSG. | |
| | | R2.3.4 | Assistance from other interconnected systems including multi-area assessment considering transmission limitations. | |
| R3.11 | documentation of the consideration for each of the items in R3.1 through R3.10 must be provided. | R2.3 | Include the following subject matter and documentation of its use: | |
| | | R2.4 | Consider the following Resource availability characteristics and document how and why they were included in the analysis or why they were not included: | |
| R4 | Each PRSG shall document that it has an agreement to enforce the requirement of R3.3 on its LSE members. | | | Requirement in BAL-502-RFC-01 is deleted as non-enforceable |
| R5 | Each LSE shall secure the resources needed to meet the resource planning reserve requirement established by a PRSG for the upcoming planning year. | | | Requirement in BAL-502-RFC-01 is deleted as non-enforceable |
| R6 | The consideration of any resources within the PRSG not committed to serving the capacity needs of the Group that are included as resources in the calculation of required reserve levels or accepted as resources used to meet requirements must be specifically justified and documented | R2.4 | · Market resources not committed to serving load (uncommitted resources) within the PRSG. | |
| | | R2.4 | · Modeling assumptions for emergency operation procedures used to make reserves available. | Added requirement expressly identified in BAL-502-RFC-02 |
| | | R2.3.3 | Transmission limitations, including the effect of firm commitments that prevent the delivery of generation reserves | Added requirement expressly identified in BAL-502-RFC-02 |
| | | R2.5 | Consider the following Transmission characteristics and document how and why they were included in the analysis or why they were not included: | Added requirement expressly identified in BAL-502-RFC-02 |
| | | R2.5 | · Transmission maintenance outage schedules. | Added requirement expressly identified in BAL-502-RFC-02 |
| | | R2.5 | · Transmission forced outage rates | Added requirement expressly identified in BAL-502-RFC-02 |