COSR Review of State ELCC Profiles

Developed by WIEB staff for COSR discussion.

State	Regulatory Approach & Methodology
Arizona	The Arizona Corporation Commission (ACC) provides preferred approach on IRP filing requirements, planning process, modeling access/transparency, and portfolio evaluation; does not require or provide guidance on ELCC. In October 2024, the ACC adopted an amendment requiring Arizona Public Service to demonstrate in future IRPs that it has acquired a sufficient mix of dependable and dispatchable capacity to ensure resource adequacy before exiting the Four Corners Power Plant. **Utility-Specific Approach:** Arizona Public Service (APS): Hybrid approach; uses marginal ELCC for analysis and optimization; applies ELCC at the portfolio (average) level for planning and regulatory purposes. TEP: Portfolio-centric (average-leaning); probabilistic reliability modeling with less frequent marginal ELCC sensitivity work; less public emphasis on declining marginal value curves. Focus is on whether the entire portfolio meets a planning reserve margin and whether the plan is robust under weather and load scenarios. More recently, moving toward technology-specific ELCC and additional granularity in quantification of ELCC values to better capture dynamics of saturation effect. See E3 study on potential approach for ELCC.
California	Slice-of-day (SOD) implementation and compliance began in 2025 (D.24-06-004) with an hourly RA compliance framework with 24 hourly slices for each month, rather than a single peak-hour adequacy check. ELCC is the CPUC's approach to convert resource capacity into NQC / compliance values for procurement and RA purposes. R.25-06-019 (current proceeding): provides the Commission's most recent IRP oversight and reliability filing requirements for Load Serving Entities' (LSEs) 2024-26 Integrated Resource Plans (IRPs): • Resource Marginal ELCCs: Marginal ELCCs for different resource classes with a given system portfolio designed to capture resource contributions during critical reliability hours • Reliability Procurement Need (RPN): the system-level reliability need calculated as the sum of marginal ELCC MW for all resources in the portfolio • Need Allocation: RPN is allocated to all LSEs based on LSE load share during critical hours, using 2026 year-ahead RA slide-of-day forecast for LSE hourly loads (see Decision D.22-06-050). These are weighted based on critical hour frequency (i.e., occurrence of EUE during a particular month-hour In summary, CPUC uses marginal ELCC for planning and policy purposes (IRP reliability inputs, mid-term reliability procurement studies, and related planning analyses) to capture diminishing returns (as non-firm resources are added), resource interactions, and system evolution. For compliance, the initial planning values are translated into administratively defined counting/accreditation values, but the mechanism depends on context. For Mid-Term Reliability procurement, staff-published ELCC values convert nameplate MW into NQC terms for the applicable compliance tranche/year. In the ongoing RA / Slice-of-Day framework, most resources use monthly NQC values, while solar and wind use the hourly profiles. NQC data may be updated during the compliance year. Storage accreditation depends on administratively specified duration, efficiency, and availability assumptions.
Idaho	No codified statewide ELCC methodology. Staff comments and Commission orders (Idaho Power IRPs) provide indirect commentary. As recently as 2025, the Commission Staff acknowledgment order (Order No. 36937 (Case No. IPC-E-25-23)), recommended that Idaho Power improve the next IRP by: "providing additional clarity regarding the adjustments to the seasonal Planning Reserve Margin ("PRM") and the Effective Load Carrying Capability ("ELCC") curve when the LTCE-developed portfolio results in a capacity shortfall in the RCAT model." **Utility-Specific Approach:** Idaho Power: Primarily marginal / incremental ELCC, supplemented with explicit engineering and operational judgment for hydro resources, seasonality, and system context. ELCC values are used to

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	represent capacity contributions of different resource classes (solar, wind, storage, demand response. These values are applied across blocks of resources (not recalculated for each incremental MW). The 2023 IRP and 2025 IRP stress robustness over optimization.
Nevada	The PUCN reviews NV Energy's use of ELCC in IRP and resource-adequacy modeling. **Utility-Specific Approach:** NV Energy: NV Energy uses UCAP capacity accounting for thermal resources. NV Energy incorporates ELCC for storage and solar, with a total-portfolio ELCC that examines marginal ELCC values for incremental storage and solar resource additions.
New Mexico	The New Mexico Public Regulation Commission (NMPRC) does not treat ELCC as a standalone, codified statewide requirement or universal accreditation rule. Instead, the NMPRC regulates the IRP and procurement processes, requiring utilities to justify their resource-adequacy assumptions, and then evaluates ELCC as part of the evidentiary record when utilities use it in IRPs or contested procurement cases. In practice, that means ELCC is accepted and increasingly important, especially in PNM proceedings, but it is not mandated by rule as the exclusive accreditation method for all utilities or all resource classes. It is also worth noting that the IRP Rule (17.7.3 NMAC) applies only to investor-owned utilities; distribution cooperatives serving parts of the state fall outside this framework. The Energy Transition Act of 2019 accelerated New Mexico's transition away from coal, making ELCC and probabilistic resource-adequacy analysis more important in evaluating replacement capacity and testing whether portfolios meet reliability targets under future conditions. In New Mexico proceedings, utilities and parties have focused on storage duration, saturation effects as storage penetration rises, and differences between standalone and hybrid resource ELCC. The Commission has shown a willingness to scrutinize these assumptions closely. **Utility-Specific Approach**: PNM: In its 2023 IRP, PNM used EnCompass for capacity-expansion portfolio selection and SERVM, a reliability model provided by Astrapé with E3 support, to run the probabilistic simulations that produce ELCC values. The reliability target was a loss-of-load expectation of 0.1 days per year. SERVM produced marginal ELCC values for new wind, solar, and storage, and those values fed into EnCompass as accredited capacity inputs. For the 2026 IRP (due September 2026), PNM committed in its 2023 Action Plan to align its resource-adequacy modeling with the requirements of the Western Resource Adequacy Program (WRAP), which will extend accreditation analysis to thermal resources as well. PNM has indicated it intends to start from a portfolio-level ELCC, calculate values by resource category, and then prorate the category values so they add up to the portfolio total, which is a standard way to account for diminishing returns as more of the same technology is added. El Paso Electric (EPE): EPE uses a marginal, or incremental, ELCC framework for its non-firm resources. E3's 2021 Resource Adequacy and Portfolio Analysis used the RECAP model to calculate incremental ELCC values for solar, 4-hour storage, wind, geothermal, and demand response, with a two-dimensional ELCC surface to capture how solar and storage interact when deployed together. E3 continues to provide end-to-end modeling for EPE's 2025 IRP. One contextual note: EPE's ELCC calculations are done on a system-wide basis covering both its Texas and New Mexico service areas, not for the New Mexico portion in isolation. EPE is also a non-binding subscriber to WRAP and may move toward binding participation over time.
Oregon	The Oregon Public Utility Commission requires utilities to address resource adequacy through their Integrated Resource Plans (IRPs), which the Commission reviews as part of utility-by-utility oversight of long-term reliability and procurement. The Commission has also been updating how resource capacity contributions are measured and valued, while developing a separate state resource adequacy framework to complement, not replace, utility IRPs. For capacity accreditation, the Commission has increasingly centered ELCC as the preferred approach for variable and energy-limited resources. In UM 2011 (General Capacity Investigation), the Commission adopted the Staff's capacity-value best practices in Order No. 22-468 (December 2022),

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	building on a process that began in 2019 (Docket UM 2011). The best practices endorse LOLP-based methods, with ELCC as the principal method for determining the capacity contribution of resources (primarily wind, solar, storage, hybrids, DR) and related simplified methods where full ELCC is not available or practical. UCAP/QCC treatment still applies for thermal resources. The Commission codified a broader RA framework (Order 24-133, Docket AR 660 / UM 2143) in May 2024. The Commission adopted new Division 95 RA rules designed to create an Oregon-specific compliance program that is complementary to the WRAP, while also creating standardized planning and reporting requirements for Oregon load-serving entities. The Oregon Commission requires utilities to demonstrate RA through their Integrated Resource Plans (IRPs). ELCC is the commission-endorsed method for measuring the "qualified capacity contribution" of resources, particularly for wind, solar, storage, and demand-side resources. These practices originate in Docket UM 2011 (2019), which established ELCC "best practices" for Oregon utilities and are now embedded in ongoing proceedings.
Utah	Utah Public Service Commission (PSC) does not offer specific guidance, but examines ELCC as part of Rocky Mountain Power's (PacifiCorp's) IRP and capacity-contribution modeling. **Utility-Specific Approach**: Rocky Mountain Power (PacifiCorp): In their 2025 IRP, Rocky Mountain Power used a capacity contribution incremental / marginal displacement framework and applies those capacity-contribution values incrementally.
Washington	Statewide RA coordination is jointly handled by the Washington Department of Commerce and the Washington Utilities and Transportation Commission (UTC) under RCW 19.280.065. They must convene at least one resource-adequacy meeting every 12 months and send a summary with any action items to the governor and Legislature within 60 days. The statute next expires January 1, 2031. ELCC is explicitly built into UTC's resource-adequacy framework for utility planning. Under UTC's CETA rule, utilities that are required to prepare an IRP must establish an RA standard that includes adequacy metrics (for example, LOLP/LOLE), probabilistic methods, and resource contribution measures (e.g., ELCC) applicable to all resources, including renewables, storage, hybrids, and demand response. For UTC-regulated IOUs, ELCC is standard practice in IRPs and all-source RFPs (even though the UTC IRP content rule does not specifically reference ELCC). UTC rules require IRPs and CEIPs to support reliable, clean, lowest-reasonable-cost planning, and utility filings. **Utility-Specific Approach**: Puget Sound Energy (PSE): PSE's uses an ELCC capacity-credit method (not marginal) with an Expected Unserved Energy (EUE) adjustment for energy-limited resources. Avista: Avista's Reliability Assessment Model (ARAM) is used to validate resource adequacy and resource peak contributions in IRP filings. Avista's avoided-cost methodology notes that the peaking capacity value comes from their IRP base case with ARAM rerun to create a customized factor if a profile is not similarly defined in the IRP for a Qualifying Facility.
Wyoming	In Wyoming Statute §37-18-102, the Legislature directed the PSC to: establish baseline reliability standards; prioritize dispatchable and reliable low-carbon generation; preserve coal-based generation (including CCS pathways). The Commission does not provide specific guidance on ELCC. **Utility-Specific Approach**: PacifiCorp uses ELCC internally for wind, solar, and storage. Their public input information for their 2027 IRP specifically mentions the use of ELCC, but does not provide further detail. Black Hills Energy: The most recent Wyoming-specific IRP (2021) does not explicitly identify any ELCC method used for accreditation. Black Hills Energy publicly accounts for wind and solar through

	portfolio modeling, renewable-potential analysis, a variable-resource integration study, and a 15% reserve-margin reliability screen.