

Analysis of Proposed 2026 NEC Regional Amendments

North Central Texas Council of Governments (NCTCOG)

Benefits, Costs, and Impacts for Builders and Electricians

Purpose: This document provides a concise, practical analysis of each recommended amendment to the 2026 National Electrical Code (NEC) as proposed by the North Central Texas Council of Governments (Final Draft May 2025). The analysis focuses on real-world implications for builders, electricians, general contractors, and developers working in jurisdictions that may adopt these or similar amendments. Many amendments aim to add clarity, provide additional compliance pathways (field evaluations, engineering supervision, remote witnessing, documentation acceptance), address Texas-specific licensing requirements, and resolve conflicts with modern construction practices or other codes (e.g., I-Codes, high fault current scenarios).

Overall Assessment: Most amendments have low-to-moderate cost impact and are net positive for the construction community. They reduce ambiguity that often leads to rework or delays, offer more flexible approval options than the base 2026 NEC, and enhance safety for emerging technologies (Energy Storage Systems, interconnected power production). Key themes include: (1) greater reliance on Texas-licensed Professional Engineers and TDLR-licensed electricians for specialized/high-risk work; (2) explicit acceptance of third-party evaluations and manufacturer self-evaluations in certain contexts; (3) practical accommodations for popular residential designs (window walls, islands/peninsulas); and (4) stronger first-responder safety provisions for walk-in ESS units. Jurisdictions outside the core NCTCOG area (such as Hays County/Dripping Springs) may find these useful as model language when developing local amendments for the 2026 NEC adoption cycle.

Note on Adoption: *Dripping Springs is currently transitioning to the 2024 International Residential Code (effective July 1, 2026). These 2026 NEC amendments are presented for informational and comparative purposes as the City evaluates electrical code updates. Adoption of any or all is at local discretion.*

Article 100 – Definitions: Engineering Supervision (New Amendment ***)

Proposed Change: Adds a formal definition of “Engineering Supervision” as supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations (referencing 22 Texas Administrative Code Sections 137.59(a) and (b)). The term appears 169 times in the 2026 NEC.

Benefit: Provides clear, enforceable qualification standard for when “engineering supervision” is invoked throughout the Code. Improves consistency across AHJs in North Texas and ensures only appropriately licensed Texas PEs perform this critical oversight role. Enhances public safety by tying the term to state licensing law.

Cost Impact: Low. Rarely adds direct cost unless a project specifically triggers engineering supervision requirements (e.g., certain hazardous locations, complex grounding, or large services). When needed, it formalizes existing best practice of involving a PE.

Impact on Builders/Electricians: Electricians and contractors gain a clear definition they can cite when plans call for engineering supervision. Reduces disputes with inspectors over who qualifies. May slightly increase use of PE review on borderline projects but provides a defensible, uniform standard. Positive for plan reviewers and AHJs seeking consistent enforcement.

Article 110.2 – Approval (Revised ***)

Proposed Change: Expands acceptable methods for approving conductors and equipment beyond traditional NRTL listing/labeling. Explicitly allows qualified third-party inspection agencies, field evaluations by bodies accredited by ICC IAS AC354 or ANAB, and (for relocated or field-modified

unlisted equipment) AHJ-approved field evaluation. Adds Informational Notes on self-certification limitations and NFPA 790/791 for qualifying third-party agencies.

Benefit: Gives AHJs and contractors additional legitimate pathways to approve equipment that is not (or cannot be) listed—common with custom, relocated, or legacy equipment. Reduces “all-or-nothing” rejections while maintaining safety through accredited evaluation bodies. Aligns with modern enforcement realities and supports reuse/relocation of equipment within a jurisdiction.

Cost Impact: Low to Moderate. Field evaluations by accredited bodies or NRTLs have a fee (typically project-specific). However, this amendment often prevents more expensive alternatives such as full equipment replacement or project delays. Self-evaluation option (with AHJ acceptance) can be very low cost when appropriate.

Impact on Builders/Electricians: Electricians and builders benefit from more options when dealing with unlisted or modified gear. Encourages early coordination with AHJ on approval strategy. Reduces risk of costly change orders late in construction. Plan reviewers gain clearer guidance on what documentation is acceptable. Overall, a practical, contractor-friendly improvement over rigid base NEC language.

Article 110.12 – Mechanical Execution of Work (Revised ***)

Proposed Change: Changes wording from “shall be installed” to “shall be installed and serviced by qualified persons in a professional and skillful manner.” Strengthens emphasis on workmanship and qualification.

Benefit: Reinforces that electrical work must be performed by qualified persons to a professional standard. Provides AHJs stronger language for addressing poor workmanship without relying solely on “neat and workmanlike.” Supports consistent enforcement across the region.

Cost Impact: Negligible direct cost. This is primarily an enforcement/clarity tool. It does not mandate new materials or testing—only that work meet a professional standard already expected of licensed electricians.

Impact on Builders/Electricians: Licensed electricians already operating to professional standards see little change. Helps level the playing field by giving inspectors clearer authority to require rework on substandard installations. May reduce callbacks and warranty issues long-term. Positive for quality-focused contractors.

Article 110.12(B) – Integrity of Electrical Equipment and Connections (New ***)

Proposed Change: Adds requirement that equipment compromised by paint, plaster, cleaners, abrasives, corrosion, fire, water, etc., shall be specifically evaluated by its manufacturer or a qualified testing laboratory prior to being returned to service. References NEMA GD 1-2019 (water-damaged) and GD 2-2021 (fire/heat-damaged) guides.

Benefit: Establishes a clear, documented “Plan of Action” before compromised equipment is re-energized. Protects workers and occupants by preventing use of damaged gear that may have hidden safety defects. References widely accepted NEMA evaluation guides.

Cost Impact: Low to Moderate on affected projects. Evaluation by manufacturer or qualified lab adds cost and time (shipping, testing fees, possible replacement). However, this prevents far more expensive failures, fires, or liability later. Most projects never trigger this; it applies when damage occurs.

Impact on Builders/Electricians: Electricians must now document evaluation (or replacement) of water/fire-damaged equipment before re-energizing. Creates a paper trail that protects both the contractor and the AHJ. Encourages better jobsite protection of equipment during construction. May require coordination with manufacturers—build this into project schedules for high-risk trades.

110.26(C)(1) – Working Space: Minimum Required Egress Pathway (Revised ***)

Proposed Change: Requires that the required working space around electrical equipment have a continuous, unobstructed egress pathway of at least 7.6 m (25 ft) from the equipment.

Benefit: Improves first responder and maintenance access/safety by ensuring a clear, adequately long exit path from energized equipment working space. Prevents common jobsite situations where equipment is boxed in by stored materials, partitions, or other obstructions shortly after installation.

Cost Impact: Low. Primarily a layout and housekeeping issue during and after construction. May require minor adjustments to equipment placement or storage plans in tight mechanical/electrical rooms. No new materials required in most cases.

Impact on Builders/Electricians: Electricians and builders must plan equipment locations and maintain clear egress paths of 25 ft during construction and final fit-out. Simple to implement with good coordination between trades. Reduces future service/maintenance complaints and improves safety. Easy win for AHJ enforcement.

Article 120.8 – Load Calculation (New ***)

Proposed Change: Requires that a load calculation be provided to the AHJ upon request whenever modifications to an electrical installation occur.

Benefit: Gives AHJs a practical tool to verify compliance on renovations, additions, or system modifications without mandating submission on every permit. Supports data-driven enforcement while keeping routine projects moving.

Cost Impact: Low. Most electricians already perform load calculations for proper sizing. The amendment only requires providing it when the AHJ asks—typically on larger or questionable modifications. Minimal added administrative burden.

Impact on Builders/Electricians: Electricians should retain load calc documentation as standard practice. On request, provide it promptly to avoid delays. Encourages better record-keeping. For builders, this is transparent and rarely slows well-documented projects. Strengthens AHJ's ability to catch undersized services/feeders early.

Article 210.52(C)(1) Exception – Countertop Receptacles & Window Wall Configurations (Revised **)

Proposed Change: Adds Exception No. 2 allowing required countertop receptacles to be installed “as close as practicable” to the countertop area when a concept window wall configuration prevents installation in the wall areas shown in Figure 210.52(C)(1). Total number of receptacles serving the countertop must still meet the base requirement; outlets located per 210.52(C)(3).

Benefit: Recognizes modern architectural trends (large window walls over countertops/kitchen islands) that make traditional wall receptacle placement impossible or undesirable. Provides a compliant, practical alternative instead of forcing non-aesthetic or non-functional solutions. Maintains the required number of outlets for user convenience and safety.

Cost Impact: Negligible to Low. May require use of different receptacle types or locations (e.g., side walls, cabinet faces, or listed multioutlet assemblies) but no exotic materials. Avoids costly redesigns or code variances.

Impact on Builders/Electricians: Builders and electricians gain a clear path for popular open-concept and window-wall designs common in Texas new construction. Reduces plan review back-and-forth and field change orders. Electricians must still ensure spacing and placement meet 210.52(C)(3) and that total count is maintained. Positive, practical amendment that aligns code with current residential design trends.

Article 210.52(C)(2) – Island & Peninsular Countertops (Revised ***)

Proposed Change: If a receptacle outlet is not provided to serve an island or peninsular countertop/work surface, electrical provisions (small appliance branch circuit to a listed outlet box in the cabinet at an accessible location) shall be provided for future addition of a receptacle outlet.

Benefit: Future-proofs island and peninsula installations so homeowners can easily add a receptacle later without major demolition or new circuits. Balances the desire for clean aesthetics (no visible receptacle on island) with long-term usability and code compliance. Clarifies exactly what “provisions” means.

Cost Impact: Low. Running an additional small appliance circuit to a junction box inside the island cabinet during rough-in is inexpensive when done at the same time as other wiring. Avoids much higher cost of adding it after cabinets and finishes are installed.

Impact on Builders/Electricians: Electricians should include the provision circuit and box as standard practice on island/peninsula work. Document it clearly for final inspection. Builders benefit because it satisfies code while allowing the “no receptacle on island” look many clients want. Easy to implement; prevents future service calls and homeowner frustration. Good example of code adapting to real-world preferences.

Article 230.70(E) Exception – Service Equipment Replacement (Revised **)

Proposed Change: Clarifies that when only meter sockets, service entrance conductors, or related raceways/fittings are replaced on existing service equipment that complied with prior code editions, the requirements of 230.70(A)(1) and (A)(2) (service disconnect location and grouping) do not apply. Notes that language was moved in the 2026 NEC.

Benefit: Prevents unnecessary and costly full service upgrades when only the meter or entrance conductors are being replaced on older but code-compliant installations. Provides clear grandfathering language that supports practical maintenance and repair work.

Cost Impact: Cost savings. Avoids triggering full service relocation or upgrade costs (often \$5k–\$15k+) on simple meter/entrance conductor replacement jobs. Lowers barrier to needed maintenance on aging housing stock.

Impact on Builders/Electricians: Electricians can perform targeted service repairs/replacements without being forced into full modernization projects. Reduces homeowner resistance to necessary work due to cost. AHJs gain clear, uniform rule across North Texas. Supports affordable housing maintenance and reduces deferred maintenance. Highly practical amendment.

Article 250.50 – Grounding Electrode System (Revised ***)

Proposed Change: If the concrete-encased electrode (Ufer ground) required by 250.52(A)(3) is covered during construction before inspection, one of the following is required: (1) install a ground ring per 250.52(A)(4), or (2) under engineering supervision, detail a point of connection to the covered electrode. Provides uniform enforcement path when electrode is inadvertently covered.

Benefit: Solves a very common construction problem in Texas (concrete pours covering Ufer grounds before electrical inspection). Gives contractors two clear, enforceable options instead of facing stop-work or expensive excavation. Maintains safety intent of the electrode while being practical.

Cost Impact: Low to Moderate. Option (1) ground ring adds material/labor cost (copper conductor, rods). Option (2) engineering supervision adds PE consultation fee but may be cheaper than excavation or redesign. Most projects can choose the lower-cost path with early coordination.

Impact on Builders/Electricians: Builders and electricians must monitor foundation work closely and coordinate inspection timing. If electrode will be covered, have a pre-agreed plan (ground ring or PE detail) ready. Reduces adversarial “gotcha” moments with inspectors. Encourages better jobsite communication between foundation and electrical trades. Uniform rule across adopting jurisdictions is a major plus.

Article 408.4 – Circuit Directory / Circuit Description (Revised **)

Proposed Change: Expands requirements for legible, permanent circuit directories. Must be clear, evident, specific to purpose/use (including spares), not dependent on transient occupancy, and explain any abbreviations/symbols. Applies to switchboards, switchgear, and panelboards.

Benefit: Improves long-term safety and serviceability by ensuring accurate, durable circuit identification that survives tenant turnover and renovations. Reduces troubleshooting time and errors during maintenance or emergencies.

Cost Impact: Low. Requires more thoughtful labeling during installation but uses standard materials (adhesive labels, directories, or engraved plates). Time investment is modest and pays off in reduced service calls.

Impact on Builders/Electricians: Electricians should create detailed, accurate directories as standard practice—not just “Spares,” “Lights,” or “Plugs.” Use consistent abbreviations and update when circuits are modified. Benefits future service electricians and first responders. Slightly more upfront work but significantly reduces confusion and liability. Good professional practice that the amendment now enforces uniformly.

Article 410.118 – Access to Other Boxes via Luminaires (Revised **)

Proposed Change: Adds exception permitting removable luminaires with minimum dimensions of 22 in. × 22 in. to be used as access to outlet, pull, junction boxes, or conduit bodies (provided they are not integral to the luminaire). Aligns with limited-access ceiling measurement in 110.26(A)(4).

Benefit: Allows practical access in lay-in ceiling or similar installations without requiring dedicated access doors/panels in every location. Recognizes that large removable luminaires can safely serve as access points while maintaining fire/lighting integrity.

Cost Impact: Cost savings or neutral. Avoids installing separate access doors or panels in many ceiling locations. May allow use of standard large troffer or panel lights as dual-purpose (light + access).

Impact on Builders/Electricians: Electricians gain flexibility in ceiling layout and access planning. Must ensure the luminaire is removable and meets the 22×22 in. minimum. Good coordination with ceiling/lighting designers required. Reduces material and labor for access hardware. Practical, cost-effective amendment that reflects real ceiling construction practices.

Article 422.31(B) – Disconnecting Means for Appliances >300 VA (Revised **)

Proposed Change: Permits the branch-circuit switch or circuit breaker to serve as the disconnecting means for permanently connected appliances >300 VA if it is within sight and readily accessible, or capable of being locked open per 110.25 and readily accessible. Adds Informational Note listing acceptable means of access per I-Codes (permanent stair, pull-down stair ≥300 lb capacity, access door from upper floor). Reason notes 2026 NEC revision and that enforcement can occur through other sections.

Benefit: Provides clear, practical options for disconnect location on appliances (water heaters, etc.) while maintaining safety. The access note helps align electrical requirements with building code access rules, reducing conflicts between trades/AHJs.

Cost Impact: Low. Clarifies existing practice rather than adding new requirements. Lockable breakers or in-sight placement are already common. The access note may influence equipment location planning but rarely adds cost.

Impact on Builders/Electricians: Electricians can use standard lockable breakers or in-sight disconnects with confidence. Must verify “readily accessible” per the I-Code access methods listed. Reduces interpretation disputes. Supports cleaner mechanical room layouts. Minor but helpful clarification that prevents over-interpretation of “readily accessible.”

Article 500.8(A)(3) – Suitability of Equipment in Hazardous (Classified) Locations (Revised ***)

Proposed Change: Adds option (3): “Evidence acceptable to the authority having jurisdiction such as a manufacturer’s self-evaluation” as a method to determine suitability of identified equipment in hazardous locations, alongside listing/labeling or qualified lab/inspection agency evaluation.

Benefit: Gives AHJs flexibility to accept manufacturer self-evaluation documentation for equipment in Class I/II/III locations when full listing is impractical or unavailable. Maintains safety through AHJ oversight while providing a realistic path for specialized or custom equipment common in industrial/process settings.

Cost Impact: Low to Moderate. Self-evaluation documentation must still be credible and acceptable to the AHJ; poor documentation will be rejected. May avoid expensive third-party evaluation or custom listing fees on certain equipment. Risk of rejection if documentation is inadequate.

Impact on Builders/Electricians: Contractors working in classified areas (refineries, chemical plants, grain handling, etc.) gain another tool for equipment approval. Must present clear, technical self-evaluation packages early. Electricians should coordinate with manufacturer engineering support. Useful in Texas industrial corridors. AHJs retain final say—transparency and quality documentation are key.

Article 505.7(A) – Implementation of Zone Classification System (Revised ***)

Proposed Change: Requires that classification of areas, engineering/design, equipment/wiring method selection, onsite assessment, and inspection in Zone-classified locations be performed by a qualified licensed professional engineer in the State of Texas (referencing the same 22 TAC 137.59 sections), rather than simply “qualified persons.”

Benefit: Elevates the qualification bar for Zone hazardous location work to Texas-licensed PEs with appropriate expertise. Ensures complex area classification, equipment selection, and inspection are performed by professionals legally accountable under state engineering law. Strengthens safety in high-risk industrial environments.

Cost Impact: Moderate. Requires involvement of a Texas-licensed PE for Zone projects (or portions thereof). Adds engineering fees but is already best practice for most industrial clients. Reduces risk of improper classification leading to catastrophic incidents or failed inspections.

Impact on Builders/Electricians: Electrical contractors in oil/gas, chemical, manufacturing, or other Zone-classified facilities must plan for PE engagement on classification, design, and inspection phases. Cannot rely solely on in-house “qualified persons” for the full scope. Increases professionalism and accountability. May favor firms with established PE relationships. Positive for safety culture in Texas industry.

Article 600.4(B) – Electric Sign Visibility & Class 2 Field-Wired Signs (Revised ***)

Proposed Change: Requires listing labels/markings identifying input voltage and current rating to be visible after installation and permanently applied in a location visible prior to servicing (may be non-public facing). Class 2 field-wired signs must have the listing label permanently applied on the power supply enclosure. Supports verification of compliance with UL 48.

Benefit: Ensures critical electrical rating information remains accessible for maintenance, troubleshooting, and AHJ verification without removing signs or accessing public-facing surfaces. Improves safety and code compliance for electric signs, a common source of electrical incidents.

Cost Impact: Low. Requires thoughtful label placement during sign fabrication/installation. Permanent application on power supply for Class 2 signs is straightforward. Avoids future service difficulties and potential AHJ rejections.

Impact on Builders/Electricians: Sign contractors and electricians must plan label locations so they are service-visible and permanent. For field-wired Class 2 signs, ensure label is on the power supply

enclosure. Simple documentation step that prevents costly service access issues later. Good practice that the amendment now codifies clearly.

Article 695.7(A)(1) – Fire Pump Supply Conductors (Revised ***)

Proposed Change: Requires service conductors and on-site power production conductors for fire pumps to be physically routed outside buildings and installed as service-entrance conductors per 230.9 and Article 230 Parts III/IV. If routing outside is impossible, permits routing through building only per specific 695.7(A)(2)(d) subsections. Exception: supply conductors within the fire pump room itself are not required to meet 695.7(A)(2)(d)(2). Reason cites high fault currents (150k–190kA possible) and conflict with 230.70(A)(1) service disconnect rules; not all fire pump rooms are fire-rated on all four sides.

Benefit: Addresses a critical life-safety gap: protecting fire pump supply conductors from high fault currents and fire exposure when routed through non-rated spaces. Provides clear routing hierarchy (outside preferred) with practical exceptions. Reduces conflict between electrical and fire protection code requirements.

Cost Impact: Moderate on affected projects. Routing conductors outside or in protected shafts may increase material/labor (longer runs, larger raceways, fire-rated enclosures). However, the cost is justified by the life-safety importance and avoids potential total system failure during a fire event. Early design coordination essential.

Impact on Builders/Electricians: Designers, builders, and fire pump contractors must prioritize outside routing or code-compliant protected paths during planning. Cannot assume interior routing without meeting the specific subsections. Electricians installing fire pump circuits should verify room rating and conductor protection requirements with the fire protection engineer/AHJ early. Critical safety amendment that prevents potentially catastrophic failures.

Article 700.4(A) – Commissioning Witness Test for Emergency Systems (Revised ***)

Proposed Change: Allows the AHJ to conduct or witness commissioning of completed emergency systems in person, remotely, or through documentation acceptable to the AHJ—both upon initial installation and periodically thereafter.

Benefit: Provides flexible compliance paths for commissioning witness testing, easing scheduling burdens on contractors, AHJ staff, and building owners while maintaining oversight. Supports remote/virtual options that became common during/after pandemic and for geographically dispersed jurisdictions.

Cost Impact: Low to Cost-saving. Reduces travel time and scheduling delays for all parties. Documentation option can be very efficient for routine or well-documented systems. May slightly increase administrative effort to prepare acceptable documentation packages.

Impact on Builders/Electricians: Contractors should prepare clear, complete commissioning documentation packages (test results, settings, as-builts) as standard practice. Remote or documentation-based witnessing can speed final approval and Certificate of Occupancy. Periodic re-testing requirement is clarified. Positive for project timelines and AHJ workload management.

Article 701.4(A) – Commissioning Witness Test for Legally Required Standby Systems (Revised ***)

Proposed Change: Similar to 700.4(A) but for Legally Required Standby Systems: AHJ may conduct or witness commissioning in person, remotely, or via acceptable documentation upon installation (periodic requirement not explicitly stated here).

Benefit: Extends the same practical flexibility to legally required standby systems (healthcare, certain public buildings, etc.). Maintains safety oversight while reducing friction in the final commissioning phase.

Cost Impact: Low. Same benefits as 700.4(A)—scheduling flexibility and reduced travel/admin burden.

Impact on Builders/Electricians: Similar impact to emergency systems amendment. Contractors benefit from multiple compliance pathways. Prepare strong documentation to take advantage of remote or desk review options. Helps keep complex projects on schedule.

Article 705.8 – Installation of Interconnected Power Production Sources (Revised **)

Proposed Change: Requires installation of one or more electrical power production sources operating in parallel with a primary source to be performed only by qualified persons. During installation, at least one of the following must be on site: (1) a person holding a Texas TDLR Master Electrician License, or (2) a person holding a Texas TDLR Journeyman Electrician License.

Benefit: Ensures that complex, high-risk parallel power production installations (PV, wind, generators, battery systems, etc.) are performed under direct supervision of Texas-licensed electricians. These systems involve Chapter 6 & 7 requirements, interconnection rules, and safety hazards that warrant licensed oversight on site.

Cost Impact: Moderate. Requires scheduling a licensed Master or Journeyman to be physically present during installation of interconnected systems. May affect smaller or out-of-area crews. However, most reputable electrical contractors already employ or subcontract licensed personnel. Cost is primarily scheduling/coordination, not new materials.

Impact on Builders/Electricians: Electrical contractors must ensure a TDLR-licensed Master or Journeyman is on site throughout the installation of any parallel power production source. This is a significant compliance requirement for solar + storage, generator intertie, and microgrid projects. Plan accordingly in bids and schedules. Raises the bar for unqualified or unlicensed installers. Positive for safety and professionalism in a rapidly growing sector.

Article 705.11(C)(1) – Power Source Connections in Buildings (Revised ***)

Proposed Change: Revises rules for power source service conductors located within buildings and connected to existing service conductors/equipment. Requires termination in a disconnect per 230.70(A)(1) and protection per 230.91, with specific methods: (1) Dwelling units—OCPD within 10 ft of conductor length from point of connection; (2) Other than dwellings—OCPD within 16.5 ft; or (3) Under engineering supervision for services ≤1000V (other than dwellings): cable limiters per ungrounded conductor within switchgear/enclosures and within 16.5 ft, or OCPD within 66 ft. Reason states base language creates life safety hazard.

Benefit: Corrects a dangerous condition in the base 2026 NEC language that could allow unprotected or improperly protected conductors inside buildings. Provides practical, graduated protection distances based on occupancy and engineering oversight. Prioritizes life safety while giving reasonable options for real-world service upgrade and DER interconnection scenarios.

Cost Impact: Moderate on affected service upgrade or DER interconnection projects. May require additional OCPDs, cable limiters, switchgear modifications, or PE involvement for the engineering supervision path. However, the cost is justified by avoiding potential arc-flash or fire hazards from long unprotected tap conductors.

Impact on Builders/Electricians: Electricians and designers working on service upgrades, PV interconnections, or generator ties inside buildings must carefully apply the new distance and protection rules. The engineering supervision path (with cable limiters or longer OCPD distance) offers flexibility for larger services but requires documented PE oversight. Early coordination with AHJ and engineer is essential. This is a safety-driven amendment that may change some common installation practices—review carefully on every 705 project.

Article 705.80 – Power Source Capacity for Island Mode (Revised **)

Proposed Change: For interconnected power production sources operating in island mode, capacity calculation uses the sum of all power source output maximum currents for the connected production source. Explicitly excludes Solar PV and wind systems from the sum capacity calculation (to keep unreliable/variable production sources out of the calculation, as 705 conflicts with standby system rules).

Benefit: Prevents over-reliance on intermittent sources (PV/wind) when sizing standby/island-mode systems. Ensures backup capacity calculations are based on reliable, dispatchable sources. Resolves conflict between Article 705 and standby/emergency system sizing rules.

Cost Impact: Low. Primarily a calculation methodology change. May affect system sizing on hybrid projects with PV + battery + generator, but does not add hardware cost in most cases. Clarifies what can be counted toward island-mode capacity.

Impact on Builders/Electricians: Designers and electricians performing island-mode or standby calculations must exclude PV and wind output from the capacity sum. Use only reliable sources (generators, batteries with firm capacity, etc.). Document the methodology clearly. Prevents undersized backup systems that could fail when solar/wind are unavailable. Important clarification for microgrid and resilience projects common in Texas.

Article 706.7(A) – Commissioning of Energy Storage Systems (ESS) (Revised ***)

Proposed Change: ESS shall be commissioned per manufacturer's instructions upon installation. The commissioning report (including operational controls and safety systems) shall be provided to the AHJ upon request. Unless required elsewhere in the code, the AHJ is not required to conduct or witness the commissioning.

Benefit: Shifts primary responsibility for ESS commissioning to the manufacturer's process and documentation, with AHJ review on request rather than mandatory witnessed testing. Reduces scheduling bottlenecks while ensuring critical safety and operational data is available to the AHJ when needed. Supports rapid growth of residential and commercial ESS deployments.

Cost Impact: Low. Most ESS manufacturers already provide commissioning procedures and reports. The amendment formalizes submission upon request rather than adding new testing. May slightly increase documentation preparation but avoids mandatory AHJ witness delays.

Impact on Builders/Electricians: ESS installers (often electricians or specialized integrators) should complete manufacturer commissioning, retain the report, and be prepared to submit it promptly to the AHJ. Plan for possible AHJ questions on safety systems and controls. Reduces project closeout friction. Good balance between oversight and practicality for the booming ESS market.

Article 706.15(B) – ESS Disconnecting Means Location & Control; Emergency Shutdown for Dwellings (Revised ***)

Proposed Change: Requires the ESS disconnecting means to be readily accessible and comply with one of: (1) located within the ESS, (2) visible and within 10 ft of the ESS, or (3) lockable open per 110.25 or enclosure lockable closed. If controls to activate disconnect are not in sight of ESS, they must be lockable per 110.25 and location marked on the disconnect. For equipment with door assembly, disconnect must be outside and within sight. For one- and two-family dwellings, ESS must include an emergency shutdown function to cease export of power to premises wiring; initiation device(s) located at readily accessible location outside the building, plainly indicating "off" or "on" position, with "off" performing the shutdown. Reason: pre-assembled walk-in ESS units have led to serious first-responder injuries; this provides appropriate protection level.

Benefit: Significantly enhances first-responder and maintenance safety for Energy Storage Systems, especially walk-in/containerized units. Mandates clear, accessible disconnects and—for homes—an

external emergency shutdown device that first responders can operate without entering the building or the ESS enclosure. Addresses documented injury incidents.

Cost Impact: Moderate for new 1-2 family dwelling ESS installations. Requires addition of an external initiation device (e.g., emergency stop button or switch in a weatherproof enclosure) with clear labeling and wiring back to the ESS shutdown circuit. Cost is modest (device + wiring + labor) but is a new requirement. For larger/commercial ESS, primarily affects disconnect placement and labeling—already good practice.

Impact on Builders/Electricians: Electricians and builders installing residential ESS (especially whole-home or larger battery systems) must now include an outdoor emergency shutdown initiation device that is readily accessible and clearly marked. This is a life-safety feature for firefighters. For commercial/walk-in ESS, ensure disconnect is outside the enclosure and within sight, with proper locking and control marking. Plan this into the design early—do not treat as an afterthought. Critical safety improvement that may influence product selection and layout on ESS projects.

Article 708.6 – Conduct or Witness Test for Critical Operations Power Systems (COPS) (Revised *)**

Proposed Change: Allows the AHJ to conduct or witness testing of completed COPS in person, remotely, or through documentation acceptable to the AHJ—upon installation and periodically afterward. Mirrors the flexibility added to Articles 700 and 701.

Benefit: Extends practical commissioning flexibility to Critical Operations Power Systems (data centers, 911 centers, hospitals, etc. that require enhanced reliability). Supports efficient project delivery while preserving AHJ oversight through multiple methods.

Cost Impact: Low. Same benefits as 700/701 amendments—reduced scheduling friction and travel. Documentation option is especially useful for complex, highly documented COPS installations.

Impact on Builders/Electricians: Contractors on mission-critical facilities should prepare robust test documentation packages. Remote or desk review options can accelerate turnover of critical infrastructure. Periodic testing requirement is clarified. Helps balance the high reliability demands of COPS with practical construction schedules.

Summary Recommendations for Dripping Springs / Hays County

These NCTCOG amendments generally represent thoughtful, Texas-specific refinements to the 2026 NEC that balance safety, enforceability, and constructability. Several themes are particularly relevant for a growing Central Texas community like Dripping Springs:

- **Residential Design Flexibility:** Amendments to 210.52(C)(1) Exception and 210.52(C)(2) directly support modern open-concept and window-wall homes popular in the Hill Country without sacrificing receptacle availability or future-proofing islands/peninsulas.
- **ESS Safety:** The new requirements in 706.15(B) for external emergency shutdown on 1-2 family dwellings and outside disconnects for walk-in units are timely as battery storage adoption accelerates in Texas. Plan for this in new construction standards and AHJ training.
- **Licensed Professional Involvement:** Requirements for Texas-licensed PEs (Articles 100, 250.50, 505.7, 705.11) and TDLR Master/Journeyman electricians on site (705.8) raise the bar for complex or hazardous work. This aligns with Texas regulatory structure and improves accountability.
- **Practical Enforcement Tools:** Additions for load calculations on request (120.8), detailed circuit directories (408.4), and flexible commissioning witness options (700/701/708) give AHJs better tools without creating unnecessary bottlenecks.
- **Grounding & Service Issues:** The concrete-encased electrode fix (250.50) and fire pump conductor protection (695.7) address real, recurring field problems in Texas construction.

Recommended Next Steps: Review these amendments against the City's current electrical code adoption and enforcement practices. Consider forming a small stakeholder group (local electricians, builders, engineers, fire marshal) to evaluate which amendments would be most beneficial locally. Many can be adopted with minimal training; a few (ESS shutdown, 705 interconnection distances, PE requirements for Zone work) warrant targeted outreach and education before the next code cycle. These amendments position adopting jurisdictions as forward-leaning while remaining practical for the construction community.

— End of Analysis —