



RESEARCH ARTICLE

Section: *Literature, Linguistics & Criticism*

Integrating climate-neutrality criteria into sustainable public procurement: A comparative legal study of the United Arab Emirates, European Union and France

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Public procurement increasingly serves as a legal and regulatory instrument through which governments shape markets and pursue sustainability goals. Using doctrinal, comparative and normative legal analysis, this study examines how climate-neutrality criteria can be incorporated into sustainable public procurement in the United Arab Emirates (UAE), drawing on European Union (EU) and French law. The comparison shows that environmental objectives become legally credible when they are translated into transparent specifications, award criteria, life-cycle costing methods, evidentiary rules and performance obligations, rather than left as broad policy aspirations. The UAE federal procurement framework already recognises public value, sustainable development, environmental specifications and products that reduce carbon emissions, but it does not yet provide a fully operational climate-procurement methodology. The study therefore proposes a four-part Climate-Neutral Procurement Legality Test: a criterion must be connected to the subject matter or performance of the contract, objectively measurable or verifiable, proportionate to the procurement's value and environmental significance, and enforceable after award. It also develops a procurement-cycle model covering needs assessment, technical specifications, supplier qualification, award, performance monitoring and review. The analysis concludes that climate-neutral procurement is legally feasible in the UAE, provided that national climate commitments are converted into contract-specific, reviewable and enforceable requirements while preserving equal treatment, transparency and competition.

KEYWORDS: climate neutrality, green administrative contract, green public procurement, life-cycle costing, sustainable public procurement, United Arab Emirates procurement law

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1. Introduction

Public procurement was once treated mainly as an administrative route for acquiring goods, works and services while safeguarding legality, budgetary discipline and competitive equality. That account is now incomplete. Because public authorities purchase at scale and define the conditions under which suppliers compete, procurement also shapes markets and distributes public value. It can promote innovation, responsible production and social or environmental objectives without ceasing to be governed by transparency, equal treatment and accountability (McCrudden, 2007; Organisation for Economic Co-operation and Development [OECD], n.d.).

The climate dimension makes this regulatory role especially important. Emissions are affected not only by environmental regulation, but also by what governments buy, how they define need, the costs they recognise and the obligations they monitor after award. Sustainable public procurement is therefore a demand-side instrument of climate governance. Sustainable Development Goal 12.7 expressly encourages national sustainable-procurement policies, while recent scholarship identifies a persistent gap between climate ambition and the practical criteria available to public buyers (Bernardini, Máñez Costa, & Molinari, 2025; United Nations Environment Programme [UNEP], n.d.-a).

EU and French law provide useful comparators because they combine environmental discretion with procurement discipline. Directive 2014/24/EU permits environmental specifications, labels, award criteria, life-cycle costing and performance conditions, but subjects their use to equal treatment, non-discrimination, transparency and proportionality. French law adds an administrative-law perspective by requiring sustainability to be considered when the public need is defined, not merely when tenders are scored (European Parliament & Council of the European Union, 2014; French Republic, n.d.-a).

The UAE presents a timely case. The Green Agenda 2030 and Net Zero 2050 Strategy provide a national policy setting for low-carbon public purchasing (Khater et al., 2025a), while Federal Law No. 11 of 2023 links federal procurement to public value, sustainable development and products that reduce carbon emissions and environmental harm (United Arab Emirates Government, n.d.-b, n.d.-c; United Arab Emirates, 2023). Yet a policy commitment does not become a procurement obligation until it is expressed through specifications, evidence, evaluation methods, contractual duties and remedies. The broader problem of translating climate commitments into domestic legal responsibility reinforces that need for operational legal design (Elhaw & Abo El Wafa, 2026).

Against that background, the study asks: how can climate-neutrality criteria be integrated into sustainable public procurement in the UAE, in light of EU and French experience, without undermining legality, transparency, equal treatment, proportionality and competition? It argues that climate-oriented procurement is legally defensible only when the relevant criterion is connected to the contract, measurable or verifiable, proportionate and enforceable. The contribution lies not in the familiar proposition that public purchasing can support environmental policy, but in reconstructing the green administrative contract as a legally bounded and reviewable form of climate governance.

1.1 Research question and original contribution

The contribution is fourfold. The article distinguishes sustainable, green and climate-neutral procurement from the green administrative contract; develops a four-part Climate-Neutral Procurement Legality Test; applies it to the UAE federal framework; and translates it into a procurement-cycle model and adaptable contractual mechanisms. Its claim is not merely that purchasing can support environmental policy, but that climate objectives can be made operational without weakening transparency, equal treatment, proportionality, competition or reviewability.

2. Conceptual and Literature Framework

2.1 Public procurement as strategic governance

Public procurement is commonly described as the process by which public authorities acquire goods, works and services. That description is accurate but incomplete. Public authorities purchase with public funds, under public-law constraints and for the purpose of satisfying public needs. Procurement is therefore governed not only by efficiency and price, but also by legality, equal treatment, transparency, proportionality, competition, accountability and the public interest (McCrudden, 2007; Organisation for Economic Co-operation and

Development [OECD], n.d.).

When procurement is understood as an exercise of public authority through contract, purchasing choices may legitimately reflect values recognised by the legal system. Environmental protection, sustainable development and climate neutrality can form part of the public value that procurement delivers, but only through techniques that keep administrative discretion legally bounded (Arrowsmith & Kunzlik, 2009; Sjøfjell & Wiesbrock, 2015). The shift from transactional purchasing to strategic procurement therefore changes the content of value for money without displacing equal treatment or competition. OECD materials similarly treat strategic procurement as a means of advancing resource efficiency, innovation, small-enterprise participation and social value (OECD, n.d.).

Strategic procurement is not a licence to attach any policy objective to any contract. Environmental aims must be expressed through disclosed specifications, award criteria, evidence, performance duties and remedies. The relevant question is thus not whether sustainability and procurement discipline compete, but how procurement law can accommodate both within a reviewable framework (Arrowsmith & Kunzlik, 2009; Sjøfjell & Wiesbrock, 2015).

2.2 Sustainable and green public procurement

Sustainable public procurement is the broadest concept used in this study. It incorporates economic, social and environmental considerations into purchasing decisions and seeks long-term public value rather than the lowest immediate price. It may encompass labour conditions, accessibility, support for small and medium enterprises, responsible supply chains and environmental performance. UNEP accordingly presents sustainable procurement as a demand-side mechanism through which public purchasing power can influence production and consumption patterns (United Nations Environment Programme [UNEP], n.d.-b). This breadth matters because a criterion may be sustainable without being specifically environmental; the present article addresses only the climate-related part of the wider agenda.

Green public procurement is narrower because it focuses on environmental impact. The European Commission defines it as the procurement of goods, services and works with reduced environmental impact throughout their life cycle compared with alternatives serving the same function (European Commission, n.d.-b). The definition is both comparative and life-cycle oriented: environmental impact may arise during production, transport, use, maintenance, disposal, recycling or end-of-life treatment.

The life-cycle dimension is particularly important in public procurement because the lowest purchase price may not represent the best public value. A product that is cheaper at the point of acquisition may consume more energy, require more maintenance, have a shorter useful life or generate higher disposal costs. Conversely, a higher initial price may be justified where the product or service delivers lower environmental and financial costs over time. This is why the European Commission treats life-cycle costing as a central tool of green public procurement: purchase price is only one element in the broader process of purchasing, owning and disposing of a product, service or work (European Commission, n.d.-c).

The literature on green public procurement has long emphasised the importance of allowing public buyers to make environmentally informed what-to-buy decisions. Kunzlik (2013) argues that EU green procurement is a market-based instrument whose effectiveness depends on the capacity of public purchasers to require environmental standards in the goods and services they buy. This insight is central to the present article, but it must be adapted to the UAE context: the freedom to buy green must operate within the discipline of federal procurement law, equal treatment, transparency and competition.

2.3 Climate-neutral procurement and green administrative contracts

Climate-neutral procurement is a climate-specific subset of green procurement. Whereas green procurement may address water, waste, hazardous substances, biodiversity or recyclability, climate-neutral procurement focuses on reducing, measuring, managing or verifying greenhouse-gas and energy impacts associated with the purchased goods, services or works. Relevant requirements may concern energy efficiency, low-carbon materials, renewable energy, life-cycle emissions, waste prevention, carbon reporting or performance indicators (Bernardini et al., 2025; European Commission, n.d.-b; UNEP, n.d.-a).

The distinction between a climate objective and a procurement criterion is essential. Climate neutrality is a broad policy objective (Elhaw & Abo El Wafa, 2026). Procurement law, however, operates through criteria,

specifications, clauses, evidence and remedies. A tender document that simply states that a contract should support climate neutrality is too vague to guide bidders or bind contractors. By contrast, a requirement that tenderers disclose the energy consumption of a proposed product, provide evidence of recycled content, submit a method for reducing waste during performance or meet defined environmental indicators is legally more meaningful (European Parliament & Council of the European Union, 2014; Kunzlik, 2013).

The same distinction helps to guard against greenwashing in public procurement. Broad claims of being 'green' or 'climate friendly' are of little legal value unless the tender identifies evidence and a method of verification. Sustainability reporting, environmental labels and supplier declarations can assist an authority, but they should be treated as evidence rather than as conclusive proof; the contract should also provide a response where promised performance is not delivered (Andhov et al., 2020; Schoenmaekers, 2023).

The green administrative contract is the legal form through which these ideas become binding. A public contract should not be called green merely because it sits within an environmental policy. It becomes green only when environmental or climate criteria are legally integrated into formation, award or performance (European Parliament & Council of the European Union, 2014; Kunzlik, 2013; Djebaili & Amraoui, 2025; Sadeki & Benguerdi, 2024).

A green administrative contract may be defined as a public contract concluded by, or under the authority of, a public entity, in which environmental or climate-related criteria are incorporated into one or more stages of the contractual cycle to advance a sustainability objective while respecting administrative and procurement-law principles. Its green element must be operational: it should affect the definition of need, specifications, award, obligations or monitoring, and remain subject to proportionality and reviewability (Arrowsmith & Kunzlik, 2009; Sjøfjell & Wiesbrock, 2015).

The administrative-law dimension is crucial. In private contracts, parties may include environmental obligations as part of contractual autonomy. In administrative contracts, the public authority is constrained by procurement rules and public-law principles. It cannot impose environmental criteria arbitrarily. It cannot use green language to favour a particular supplier. It cannot rely on vague sustainability claims that bidders cannot understand or challenge. The green administrative contract must therefore reconcile environmental ambition with the legal discipline of public procurement (Concordia Bus Finland, 2002; Commission v Netherlands, 2012).

2.4 Literature, research gap and originality

The literature has developed along three main lines. One treats procurement as a strategic governance instrument capable of advancing sustainability and social objectives (McCrudden, 2007). A second examines the permissibility and limits of environmental specifications, labels, award criteria and life-cycle costing, particularly under EU law (Arrowsmith & Kunzlik, 2009; Kunzlik, 2013; Sjøfjell & Wiesbrock, 2015). A third considers implementation problems such as professional capacity, supplier engagement, verification, supply-chain monitoring and life-cycle data (Al Nuaimi et al., 2020; Andhov et al., 2019, 2020). Recent work also records a movement from voluntary green purchasing towards mandatory or sector-specific sustainability requirements (Böttge et al., 2023; Janssen & Caranta, 2023).

Existing scholarship has nevertheless left three linked gaps. First, it more often asks whether environmental criteria are permissible than how climate-neutrality criteria should be tested across the procurement cycle. Secondly, the green administrative contract remains under-theorised as a public-law form in which environmental promises must be evidenced and enforced. Thirdly, the UAE federal framework has received limited treatment through the specific lens of climate-neutral procurement. Practical guidance such as the Commission's Buying Green handbook explains how EU tools operate, but does not answer how those tools should be adapted to the UAE's statutory and institutional setting (European Commission, 2016).

The article addresses these gaps through a legality test based on connection, measurability, proportionality and enforceability. The contribution is at once conceptual, jurisdictional and practical: it refines the meaning of a green administrative contract, interprets the UAE framework through a climate-procurement lens, and identifies mechanisms through which public authorities can disclose, assess, monitor and defend climate-related criteria.

3. Methodology

The research uses doctrinal, comparative and normative legal methods. The doctrinal analysis examines Federal Law No. 11 of 2023, its official explanatory and administrative materials, UAE climate strategies, Directive 2014/24/EU, the French Code de la commande publique and relevant Court of Justice of the European Union (CJEU) judgments. Legal and policy materials available up to September 2026 were considered.

The comparison is functional rather than transplant-oriented. EU law is used to identify procurement techniques and limiting principles; France is selected because its administrative-law tradition links public contracting closely to the public interest and the definition of public need. The UAE is the jurisdiction of application. The normative stage evaluates which comparative principles can be adapted to the federal framework and formulates a legality test, contract mechanisms and institutional recommendations.

The study does not measure procurement outcomes empirically and does not claim that any criterion will reduce emissions merely because it is legally valid. Its task is narrower: to identify the legal conditions under which climate criteria can be designed, evaluated, reviewed and enforced. No human participants, personal data or new datasets are involved.

4. Comparative Legal Findings: The European Union and France

4.1 *EU procurement architecture and limiting principles*

The European Union model is particularly useful for analysing climate-oriented public procurement because it does not treat environmental considerations as external to procurement law. Instead, it integrates them within the legal architecture of competition, equal treatment, transparency and proportionality. Directive 2014/24/EU reflects a modern understanding of public procurement, under which public buyers may use procurement to support broader societal goals while remaining bound by the legal discipline of procurement procedures (European Parliament & Council of the European Union, 2014).

The starting point is Article 18 of Directive 2014/24/EU. It requires contracting authorities to treat economic operators equally and without discrimination and to act in a transparent and proportionate manner. At the same time, the Directive permits environmental considerations to enter procurement through several legal techniques, including technical specifications, labels, award criteria, life-cycle costing and contract performance conditions. This dual structure is central: EU law neither reduces procurement to the lowest price nor grants contracting authorities unlimited environmental discretion. It allows environmental ambition, but only through legally structured criteria (European Parliament & Council of the European Union, 2014).

4.2 *Technical specifications, labels and equivalent proof*

Technical specifications are one of the most direct legal routes through which climate objectives can be converted into procurement requirements. Article 42 of Directive 2014/24/EU provides that technical specifications must be set out in the procurement documents and must define the required characteristics of works, services or supplies. These characteristics may relate not only to the physical qualities of the product or work, but also to the specific process or method of production or provision, or to another stage of the life cycle, provided that the requirements are linked to the subject matter of the contract and proportionate to its value and objectives (European Parliament & Council of the European Union, 2014).

For climate-neutral procurement, the provision matters because many climate impacts do not appear in the final product alone. They may arise from the energy consumed during use, the materials used in production, the durability of the product, the emissions associated with production or delivery, or the waste generated at the end of life. Technical specifications therefore allow contracting authorities to move from general climate policy to precise contractual requirements (European Commission, n.d.-c; European Parliament & Council of the European Union, 2014).

Yet this technique also carries legal risks. If technical specifications are drafted too narrowly, they may favour a particular supplier, technology or product. The EU framework therefore requires specifications to preserve equal access and avoid unjustified obstacles to competition. This means that a contracting authority should normally avoid vague language such as environmentally friendly product or climate-positive service unless that language is translated into objective requirements. A stronger approach is to specify measurable performance: energy efficiency, maximum resource consumption, durability, recyclability, recycled content

or compliance with a defined environmental performance standard (European Parliament & Council of the European Union, 2014; Commission v Netherlands, 2012).

Environmental labels can assist contracting authorities in identifying goods, services or works that meet specific sustainability requirements. They are useful because they reduce the technical burden on public authorities and provide a relatively simple form of evidence. However, labels also create legal risks. If a contracting authority requires one specific label without accepting equivalent evidence, it may exclude suppliers whose products meet the required environmental standards but do not carry that exact label (European Parliament & Council of the European Union, 2014; Commission v Netherlands, 2012).

Article 43 of Directive 2014/24/EU permits a specific label as evidence only under defined conditions. The label requirements must relate to the subject matter, rest on objectively verifiable and non-discriminatory criteria, emerge from an open and transparent procedure, remain accessible to interested parties and be set by an independent body. Equivalent labels and, where appropriate, other means of proof must be considered (European Parliament & Council of the European Union, 2014).

The implication for climate-neutral procurement is straightforward. The legal objective is the environmental characteristic evidenced by the label, not possession of a particular badge. Equivalent proof protects competition while allowing authorities to rely on technical information. The Commission's GPP criteria and Buying Green handbook illustrate how verifiable requirements can be incorporated into procurement documents without converting guidance into an exclusive certification route (European Commission, 2016, n.d.-a; Schoenmaekers, 2023). For the UAE, the same logic should govern energy ratings, sustainable-building classifications, supplier declarations and carbon documentation.

4.3 Award criteria, life-cycle costing and performance

The award stage is where climate-oriented procurement becomes most visible. It is the point at which competing offers are compared and the successful bidder is selected. Under Article 67 of Directive 2014/24/EU, contracts are awarded on the basis of the most economically advantageous tender. This may be assessed on the basis of price or cost, using a cost-effectiveness approach such as life-cycle costing, and may include the best price-quality ratio assessed by criteria that include qualitative, environmental or social aspects linked to the subject matter of the contract (European Parliament & Council of the European Union, 2014).

The provision rejects a narrow lowest-price model. A bid that appears cheaper at the moment of purchase may be more expensive over time if it consumes more energy, requires more maintenance, has a shorter useful life or generates higher disposal costs. Conversely, a higher initial price may be justified if the product, service or work produces lower costs and lower environmental harm over its life cycle (Andhov et al., 2019; European Commission, n.d.-c).

Article 68 of Directive 2014/24/EU provides the legal basis for life-cycle costing. Life-cycle costs may include acquisition, use, energy and resource consumption, maintenance, end-of-life costs such as collection and recycling, and costs attributed to environmental externalities, including greenhouse-gas emissions, where their monetary value can be determined and verified. The Directive also requires contracting authorities using life-cycle costing to disclose the data to be provided by tenderers and the method that will be used to determine life-cycle costs (European Parliament & Council of the European Union, 2014). This is directly relevant to climate-neutral procurement because climate performance often appears over time, not only at the moment of purchase.

For the UAE, the comparative lesson is clear. Climate-related award criteria should not be stated generally. If the contracting authority intends to evaluate energy use, emissions, maintenance costs or end-of-life costs, the tender documents should disclose the method, the required data and the relative weight of the criterion. Without this, life-cycle costing may become opaque and legally vulnerable. With it, life-cycle costing can become a legal tool for transparency, comparability and long-term public value (European Parliament & Council of the European Union, 2014; United Arab Emirates, 2023).

Directive 2014/24/EU recognises this through contract performance conditions. Article 70 permits contracting authorities to lay down special conditions relating to the performance of a contract, provided that they are linked to the subject matter of the contract and indicated in the call for competition or procurement documents. Such conditions may include economic, innovation-related, environmental, social or employment-

related considerations (European Parliament & Council of the European Union, 2014). For climate-neutral procurement, performance clauses are indispensable because they convert pre-award promises into post-award obligations.

The emerging European trajectory is towards more structured and, in selected fields, mandatory sustainability requirements. Yet mandatory language alone cannot secure environmental results: criteria still require market capacity, objective evidence, a transparent method and post-award monitoring (Böttge et al., 2023; Janssen & Caranta, 2023).

4.4 Judicial limits on environmental criteria

The Court of Justice of the European Union played a decisive role in legitimising environmental considerations in public procurement before those considerations were fully codified in the current directive. Three cases are particularly important for the argument of this article: *Concordia Bus*, *EVN Wienstrom* and *Commission v Netherlands* (*Concordia Bus Finland*, 2002; *EVN Wienstrom*, 2003; *Commission v Netherlands*, 2012).

In *Concordia Bus Finland*, the Court accepted award criteria based on bus emissions and noise levels, but required a link to the subject matter, prior disclosure, no unrestricted freedom of choice and compliance with non-discrimination (*Concordia Bus Finland*, 2002).

In *EVN Wienstrom*, the Court considered an award criterion that favoured electricity produced from renewable energy sources. It confirmed that such a criterion could be compatible with procurement law if it was linked to the subject matter of the contract, clearly disclosed and consistent with the principles of equal treatment and non-discrimination (*EVN Wienstrom*, 2003). This case is especially relevant to climate-neutral procurement because it concerns renewable energy and demonstrates that climate-related award criteria may be lawful when properly structured.

In *Commission v Netherlands*, the Court warned against imprecise use of labels and broad sustainability language. Specific labels cannot replace clear underlying requirements and equivalent proof, which is directly relevant to climate-neutral procurement (*Commission v Netherlands*, 2012).

Read together, the cases establish a coherent legality logic. Environmental criteria may contribute to economic advantage, but they must relate to the contract, be disclosed in advance, constrain the authority's judgment and permit meaningful verification. The proposed UAE test builds on that logic while adding enforceability as an explicit post-award requirement.

4.5 The French administrative-law model

French law provides an especially relevant comparator because it combines EU procurement obligations with an administrative-law tradition in which public contracts are closely connected to the public interest. The French Code de la commande publique places sustainability at the earliest stage of procurement: the definition of need. Article L2111-1 requires the nature and extent of the needs to be satisfied to be determined with precision before the launch of the procurement procedure, while taking sustainable development objectives into account in their economic, social and environmental dimensions (French Republic, n.d.-a). Its current formulation also requires public buyers, for contracts meeting EU threshold values, to take energy efficiency and energy sobriety into account.

The sequencing matters. If sustainability is considered only after the need has been defined, it may be too late. The public authority may already have framed the contract in a carbon-intensive way. By contrast, if sustainability enters at the stage of defining need, the authority must ask whether the need can be satisfied through a less carbon-intensive solution, a more durable product, a service-based model, reuse, repair or reduced consumption (French Republic, n.d.-a; French Republic, n.d.-b).

French law carries the same logic into performance. Since 22 August 2026, Article L2112-2 requires contract-performance conditions to take environmental considerations into account. Article L2112-3 treats conditions concerning any stage of the life cycle—including production, transport, use, maintenance and end-of-life management—as linked to the subject matter of the contract (French Republic, n.d.-b, n.d.-c). France therefore supplies two transferable lessons: sustainability should inform the definition of need, and award-stage commitments should survive as enforceable performance duties.

4.6 Comparative lessons

The EU and French models should not be copied mechanically into UAE law. They arise from different legal and institutional contexts. Nevertheless, they provide comparative principles that can be adapted to the UAE federal procurement framework. The first lesson is that climate-neutral procurement must operate across the procurement cycle. The second is that climate criteria must be connected to the subject matter or performance of the contract. The third is that climate criteria must be measurable or verifiable. The fourth is proportionality. The fifth is enforceability. These lessons provide the bridge to the UAE analysis in the next section (Arrowsmith & Kunzlik, 2009; Sjøfjell & Wiesbrock, 2015).

5. UAE Legal and Policy Findings

5.1 National climate strategies

The UAE Green Agenda 2030, Net Zero 2050 Strategy and Circular Economy Policy 2021–2031 establish a policy direction towards low-carbon growth, clean energy, resource efficiency and circularity (Khater et al., 2025b; United Arab Emirates Government, n.d.-a, n.d.-b, n.d.-c). Their procurement relevance is direct: public purchasing creates demand in construction-related supply chains, transport, information technology, food services and waste management. Durability, repair, reuse, recycling and efficient resource use can therefore be translated into contract requirements. The strategies do not themselves prescribe tender criteria, however; they identify the public objectives that procurement law must operationalise.

However, these strategies do not by themselves create an operational procurement model. They establish the policy direction, but they do not answer the legal question of how climate-neutrality objectives should be converted into tender specifications, award criteria, life-cycle cost methods, contract clauses and performance indicators. The central UAE challenge is therefore the movement from climate strategy to procurement design (United Arab Emirates Government, n.d.-b; United Arab Emirates Government, n.d.-c).

5.2 Scope and statutory foundations

Federal Law No. 11 of 2023 concerning procurement in the federal government provides an important legal basis for climate-neutral sustainable procurement. The law defines public interest broadly as any direct or indirect benefit accruing to the federal agency, the government or society as a result of the purchase process and contributing to government strategic visions and priorities. It also defines overall value as the best result that the federal agency can achieve in exchange for money by optimally exploiting resources effectively and economically (United Arab Emirates, 2023). These definitions are significant because they allow procurement value to be understood beyond the immediate purchase price.

The scope of the law requires precision. It applies to procurement and contracting activities of federal ministries, central bodies and qualifying independent federal entities, but Article 4 excludes specified categories, including defence and security bodies, construction projects and contracts, certain overseas and medical procurements, and classified partnership projects. Excluded entities are nevertheless directed to be guided by the law's objectives and to seek best public value (United Arab Emirates, 2023). Construction examples in this article are therefore illustrative of local policy or construction-related supply chains, not claims that every construction contract falls directly within the federal statute.

Article 2 of the law confirms this broader orientation. It aims to enhance procurement processes in line with the government digital agenda, activate digital procurement systems, ensure equality, fair treatment and non-discrimination among participating suppliers, promote integrity, trust, transparency and competition, provide public value, uphold public interest, ensure adherence to quality benchmarks and sustainable development goals, support small and medium enterprises and strengthen the national economy (United Arab Emirates, 2023). This legislative language creates conceptual space for integrating sustainability and climate considerations into federal procurement, while preserving classical procurement safeguards.

Article 7 is particularly important. It requires federal agencies to plan in advance, determine procurement requirements, develop mechanisms to ensure high quality and best public value, choose appropriate procurement methods, disclose bid evaluation criteria transparently and foster competition. It also requires federal agencies to create opportunities to attract and encourage small and medium enterprises, national procurement, local suppliers, green companies, sustainable commercial activities, and products that reduce carbon emissions and

environmental damage (United Arab Emirates, 2023).

This is a particularly strong textual basis for green procurement in the UAE federal framework. It expressly recognises green companies, sustainable commercial activities and carbon-reducing products as procurement-relevant considerations. Yet its wording also requires careful legal interpretation. If preference is given to green companies as a general category, without linking that preference to the subject matter or performance of the contract, the procurement process may risk moving from evaluating the offer to evaluating the general identity of the supplier. A climate-neutral procurement model should therefore translate these public-interest considerations into contract-specific criteria, such as energy performance, emissions reduction, recycled content, waste management, durability or measurable environmental performance (United Arab Emirates, 2023).

5.3 Public value and evaluation criteria

The UAE procurement law contains a particularly important bridge between sustainability and value for money. Article 13 states that federal agencies must seek public interest in procurement and explains that public interest includes benefits that help achieve government strategic visions and priorities, including support for green companies, sustainable commercial activities and products that reduce carbon emissions and environmental damage (United Arab Emirates, 2023). This provision connects procurement directly with national strategic priorities and environmental value.

Article 14 develops this point by requiring purchasing decisions to be based on the highest public value and the best possible outcomes against the cost of procurement throughout the procurement cycle and the contract duration. It further provides that overall value may be achieved where the value contributes to the intended results of the federal agency or achieves the State's public interest, whether social, environmental, economic, cultural or otherwise (United Arab Emirates, 2023). For climate-neutral procurement, this matters because it moves the legal assessment away from a narrow initial-price model.

The references to the procurement cycle, contract duration, operating cost and maintenance create a foundation for life-cycle reasoning. A higher initial price may represent better public value where it reduces energy consumption, maintenance, waste or end-of-life cost. UAE law does not yet provide a comprehensive method for monetising climate externalities, but its existing concepts allow guidance to develop in that direction (European Commission, n.d.-c; United Arab Emirates, 2023).

Article 22 strengthens this foundation. It provides that bids shall be evaluated in a transparent and fair manner using evaluation criteria related to the procurement subject. These criteria may include financial cost, operating and maintenance cost, delivery and completion duration, conformity with required characteristics and specifications, including technical and environmental specifications, payment terms, guarantees and supplier competence. It also requires non-price evaluation criteria to be impartial, aligned with the nature of the procurement and quantitatively measurable to the greatest extent feasible. The tender announcement must disclose the criteria, evaluation methodology and relative weight assigned to each criterion, and unannounced criteria may not be used (United Arab Emirates, 2023).

Article 22 is central to the proposed model. It supports three elements of the four-part legality test: connection, measurability and transparency. If a federal authority intends to evaluate energy efficiency, recycled content, carbon impact, durability, operating cost or environmental performance, it must disclose the criterion, explain the method of assessment and assign a clear weight. This transforms climate-oriented procurement from an aspirational policy preference into a legally reviewable evaluation method (United Arab Emirates, 2023). The official English version is informative, but the Arabic text prevails for interpretation and application (United Arab Emirates Legislations, n.d.). That detail is not merely formal. Work on authoritative interpretation in the UAE federal legal order illustrates the importance of defining operative terms before they are used to allocate rights, duties or administrative discretion (Abo el-Wafa, 2021). Undefined expressions such as 'low carbon' or 'green company' should therefore be replaced by contract-related characteristics and stated evidence.

5.4 Digital infrastructure and sectoral implementation

A distinctive feature of the UAE framework is its strong digital orientation. Federal Law No. 11 of 2023 defines the procurement system as an electronic or digital system used by federal agencies to regulate procurement

processes, facilitate secure communication and interaction between suppliers and federal agencies, finalise contracts securely, announce purchase orders and receive quotations. Article 8 requires procurement to be submitted through the procurement system unless otherwise provided, and requires the system to maintain high levels of privacy, confidentiality, security, information transparency and ease of use while ensuring procedural integrity (United Arab Emirates, 2023).

The Ministry of Finance describes the Digital Procurement Platform, Federal Supplier Register, DPP Catalogue and Federal Government Procurement Procedures Guide as core components of the procurement ecosystem. The guide aims to strengthen compliance, transparency and procurement efficiency, and can support sustainability data, supplier evidence and contract monitoring (United Arab Emirates Ministry of Finance, n.d.-a, n.d.-b, n.d.-c). The platform is therefore relevant not only to efficiency but also to implementation traceability (United Arab Emirates Ministry of Finance, n.d.-a).

Cabinet Resolution No. 122 of 2024, in force from 14 May 2025, supplies the current executive regulation of Federal Law No. 11 of 2023 and further structures the procurement system, tender documents, evaluation criteria, contract management and grievance arrangements (United Arab Emirates Cabinet, 2024). Together with the Digital Procurement Platform and procedures guide, the regulation provides an institutional base on which standard climate fields, evidence requirements and monitoring records could be built.

Climate criteria depend on reliable information about energy use, emissions, recycled content, maintenance cost, certifications and contract performance. A digital platform can standardise fields, receive equivalent proof and preserve an auditable record of evaluation and post-award monitoring. It cannot cure an indeterminate criterion, but it can make a sound one traceable and comparable (United Arab Emirates Ministry of Finance, n.d.-a, n.d.-b).

Within the UAE, sectoral initiatives also provide useful entry points for climate-oriented procurement. Dubai's Green Procurement Policy, approved by the Executive Council of Dubai, focuses in its first implementation phase on four categories of government purchases: construction materials, information technology devices, lighting materials and the waste management sector (Emirates News Agency, 2023). These categories are relevant to a phased climate-neutral procurement model because they involve measurable environmental impacts and substantial public purchasing activity. The example is not a substitute for federal regulation, but it shows how climate-relevant procurement can begin in priority sectors before wider implementation.

Construction materials are especially important because public works and infrastructure can lock in emissions for long periods, although construction projects and contracts may be governed by regimes outside the direct scope of Federal Law No. 11 of 2023. Climate-oriented procurement in construction-related supply chains may include requirements relating to low-carbon materials, recycled content, waste-management plans, energy performance, durability and life-cycle assessment. Information technology devices are relevant because they involve energy consumption, hazardous components, repairability, durability and end-of-life management. Lighting materials provide a comparatively accessible starting point because energy efficiency can often be measured using standardised indicators. Waste management directly connects procurement with circularity, recycling, treatment systems and emissions from waste handling (Emirates News Agency, 2023; United Arab Emirates, 2023).

A phased approach is preferable to universal application. Authorities should begin where environmental impact is significant, markets can respond and criteria are measurable. Sector-specific criteria can define the environmental characteristic, evidence, method, weight and performance obligation (European Commission, n.d.-a; UNEP, n.d.-b; Al Nuaimi et al., 2020). This also reflects the logic of sector-specific GPP criteria (European Commission, n.d.-a).

5.5 Legal and practical gaps

The UAE federal framework is not a blank slate. It contains several elements that support climate-neutral procurement: public interest, overall value, sustainable development goals, environmental specifications, operating and maintenance cost, transparent evaluation criteria, digital procurement, green companies, sustainable commercial activities and products that reduce carbon emissions and environmental damage. Nevertheless, several gaps remain (Khater et al., 2025b; United Arab Emirates, 2023; United Arab Emirates Ministry of Finance, n.d.-b).

The first gap is definitional. UAE law refers to environmental specifications, sustainable development and carbon-reducing products, but it does not define climate-neutral procurement criteria. The second concerns life-cycle costing: the law refers to operation and maintenance cost and public value over the procurement cycle, but lacks a detailed method for life-cycle costs or climate externalities (European Commission, n.d.-c; United Arab Emirates, 2023; Al Nuaimi et al., 2020).

The third gap concerns proof. If authorities rely on environmental labels, certifications, ratings or declarations, they need equivalent-proof rules to avoid restricting competition. The fourth concerns performance monitoring: climate obligations need environmental reports, indicators, audit rights, corrective-action plans, penalties, supplier records and termination rights where appropriate (United Arab Emirates, 2023). The fifth gap is institutional capacity. Procurement officials need legal, technical and environmental expertise to draft criteria, assess evidence, compare life-cycle costs, verify performance and manage disputes. The sixth concerns review and grievances: Article 38 allows suppliers to challenge pre-award and award decisions, so climate criteria must be drafted in ways that can withstand review (United Arab Emirates, 2023; Yaghi et al., 2025).

These gaps call for legal development rather than a wholesale replacement of the federal framework. The statute already provides enabling principles; the task is to organise them into a procurement-cycle method that can guide officials, inform suppliers and withstand grievance review (European Parliament & Council of the European Union, 2014; United Arab Emirates, 2023).

6. A UAE Model for Climate-Neutral Sustainable Procurement

6.1 Rationale and legal basis

The UAE framework can accommodate climate-neutral procurement within its statutory scope, but its enabling references to public value, sustainable development, environmental specifications and carbon-reducing products remain dispersed. A coherent model should organise those elements into criteria that officials can apply, suppliers can understand and review bodies can assess (United Arab Emirates, 2023).

A UAE-oriented model should be built from within the UAE legal framework. It should not mechanically copy EU or French law. Comparative law is valuable here because it offers tested legal techniques, but these techniques must be adapted to the UAE's federal procurement system, digital infrastructure, administrative-law principles and national climate strategies. The appropriate method is therefore one of disciplined adaptation rather than legal transplantation (Abo el-Wafa, 2021; Arrowsmith & Kunzlik, 2009; Sjøfjell & Wiesbrock, 2015).

The proposed model is based on a simple proposition: climate neutrality cannot enter procurement law as a general aspiration alone. It must be converted into criteria that can be applied by contracting authorities, understood by suppliers, reviewed by grievance bodies and enforced during contract performance. A tender document that merely states that the procurement should support sustainability or contribute to climate neutrality is legally weak unless it defines what that contribution means. By contrast, a tender document that identifies the environmental characteristic required, states the evidence to be provided, explains the evaluation methodology, assigns a clear weight and includes performance-monitoring obligations creates a legally meaningful basis for climate-oriented procurement (Concordia Bus Finland, 2002; Commission v Netherlands, 2012; United Arab Emirates, 2023).

This model is built around four requirements: connection, measurability, proportionality and enforceability. These requirements are not foreign to UAE law. Article 22 of Federal Law No. 11 of 2023 requires bid evaluation criteria to be related to the procurement subject, permits consideration of operating and maintenance costs and environmental specifications, and requires non-price criteria to be impartial and quantitatively measurable to the greatest extent feasible. It also requires the tender announcement to disclose the criteria, methodology and relative weight assigned to each criterion, and prohibits the use of unannounced criteria (United Arab Emirates, 2023).

6.2 The Climate-Neutral Procurement Legality Test

At the core of the proposed UAE model is a four-part legality test. Before inserting a climate-neutrality criterion into a federal procurement procedure, the contracting authority should be able to answer four questions. First,

is the criterion connected to the subject matter or performance of the contract? Secondly, is it objectively measurable or verifiable? Thirdly, is it proportionate to the nature, value and environmental significance of the procurement? Fourthly, can it be enforced during contract performance?

The test does not constrain green procurement; it is intended to make climate-oriented procurement more legally secure and more environmentally effective. A criterion that satisfies these four requirements is less likely to be challenged as vague, discriminatory or arbitrary. It is also more likely to produce real environmental value because it can be applied, evidenced, monitored and enforced (Andhov et al., 2020).

6.2.1 Connection

The first requirement is connection. A climate-neutrality criterion should relate to the goods, works or services being procured, or to the way in which the contract will be performed. This requirement prevents contracting authorities from evaluating suppliers on the basis of broad environmental identity unrelated to the procurement. The purpose of procurement is not to rank companies according to general corporate virtue, but to select the offer that best satisfies the public need under legally defined criteria (European Parliament & Council of the European Union, 2014; United Arab Emirates, 2023).

Article 22 supports this requirement by requiring criteria related to the procurement subject and allowing technical and environmental specifications. Thus, lighting procurement may assess energy efficiency and durability; IT procurement may address energy use and end-of-life management; and construction-related supplies, where within scope, may address low-carbon materials or waste minimisation. A general green-company requirement without contract-related performance would be weaker (United Arab Emirates, 2023).

6.2.2 Measurability and verifiability

The second requirement is measurability. A climate criterion must be capable of objective assessment. This does not always require sophisticated carbon accounting. Depending on the contract, measurability may be achieved through energy-efficiency ratings, emissions data, recycled-content percentages, durability standards, environmental management certificates, life-cycle cost data, waste-management plans or periodic performance reports (European Commission, n.d.-c; United Arab Emirates, 2023).

UAE law supports this because Article 22 requires non-price criteria to be impartial, aligned with the procurement and quantitatively measurable where feasible, and requires disclosure of criteria, methodology and weights. If lower carbon impact is scored, the authority must explain whether it will assess energy consumption, emissions, product standards, life-cycle cost, third-party certification or equivalent proof (United Arab Emirates, 2023).

6.2.3 Proportionality

Proportionality requires calibrating ambition. Major infrastructure, transport or energy-related contracts may justify detailed reporting, life-cycle costing, reduction plans, audit rights and penalties. A low-value purchase may require simpler indicators, such as energy ratings or recyclable packaging. This protects competition and SMEs while preserving climate ambition (United Arab Emirates, 2023).

6.2.4 Enforceability

Enforceability means that climate-neutral procurement cannot end at award. If environmental performance affects selection, it should appear in the contract through key performance indicators, reports, audit rights, corrective-action plans, retention of payments, penalties, supplier records or termination rights. Articles 30 and 37 support this by making the contract the legal document of obligations and requiring performance according to its terms (United Arab Emirates, 2023).

6.3 *Application across the procurement cycle*

The four-part legality test should be applied across the whole procurement cycle. Climate-neutral procurement should not be reduced to a single award criterion. It should begin with planning and continue through technical specifications, supplier qualification, award, contract performance and review.

6.3.1 Planning and definition of need

At the planning stage, the authority should ask whether the need can be satisfied in a less carbon-intensive way, for example through fewer purchases, longer asset life, service models, durable materials, demand consolidation or circular procurement. Article 7 supports advance planning and determination of procurement requirements in pursuit of public interest (United Arab Emirates, 2023).

6.3.2 Specifications and supplier qualification

The second stage is drafting technical specifications. This is where climate objectives become concrete requirements. Specifications may relate to energy efficiency, resource efficiency, recycled content, durability, repairability, low-carbon materials, waste reduction, packaging, environmental management processes or other contract-specific features. The legal risk at this stage is over-specification. If a specification is drafted too narrowly, it may favour one product, supplier or technology. A better approach is to use performance-based or functional specifications wherever possible. Instead of naming one product, method or certificate, the tender should define the environmental outcome required and accept equivalent means of proving compliance (European Parliament & Council of the European Union, 2014; European Commission, n.d.-a).

At supplier qualification, environmental capacity may be required where necessary for the specific contract, such as waste management or energy-efficiency projects. It should not become a general ESG assessment unrelated to performance. UAE law encourages green companies but also requires equality and competition (United Arab Emirates, 2023).

6.3.3 Award and life-cycle costing

At award, climate criteria allow comparison beyond price: energy use, operating cost, useful life, waste, emissions, recyclability or performance during execution. Article 22 supports this approach, provided criteria are impartial, aligned with procurement and measurable where feasible (European Commission, n.d.-c; United Arab Emirates, 2023).

A UAE model should introduce life-cycle costing gradually, beginning with sectors where the data are relatively accessible, such as lighting, IT devices, vehicles, building materials and energy-consuming equipment. The tender should disclose the data required from bidders, the calculation method, the evaluation weight and whether environmental externalities will be included. The EU life-cycle costing model is useful here because it recognises acquisition, use, maintenance and end-of-life costs, and may include environmental externalities where their monetary value can be determined and verified (European Parliament & Council of the European Union, 2014).

6.3.4 Performance, review and institutional learning

At performance, green procurement becomes real or symbolic. Tender commitments should be incorporated as obligations requiring reports, energy-performance compliance, specified materials, waste-management procedures, emissions data, records, audits or corrective action. If a bidder receives points for lower energy use or recycled content, the contract should verify that promise (United Arab Emirates, 2023).

At review, legal oversight protects bidders against vague or disproportionate criteria, while repeated oversight can support institutional learning and gradual adaptation (Aboelwafa & Yaghi, 2024; Yaghi et al., 2025). Article 38 gives suppliers grievance rights, so authorities must be able to explain why a climate criterion was used, how it was measured, weighted and applied equally (United Arab Emirates, 2023).

6.4 Contractual and institutional measures

To make climate-neutral procurement operational, UAE contracting authorities should be supported by model clauses. These clauses should be adaptable rather than mandatory in every contract. Their purpose is to provide legal language that can be tailored to the subject matter, value and environmental significance of each procurement (Andhov et al., 2020; United Arab Emirates, 2023).

Useful clauses include: environmental performance reporting, requiring periodic data to verify environmental obligations; equivalent proof, requiring acceptance of equivalent labels, certificates or evidence; life-cycle cost data, requiring tender-specified information on acquisition, operation, maintenance, energy use,

durability and end-of-life management; environmental key performance indicators, linked to corrective action and remedies; green subcontracting, making the contractor responsible for subcontractors' environmental compliance; and audit and verification clauses, allowing proportionate document review, clarification, site visits or third-party reports (European Parliament & Council of the European Union, 2014; Commission v Netherlands, 2012; United Arab Emirates, 2023).

The model also requires institutional support. The UAE should consider federal guidance explaining when climate criteria should be used, how they should be drafted, what evidence is acceptable, how life-cycle costing should apply and how performance should be monitored. Guidance should include sector examples for high-impact categories and should be accompanied by training for procurement officials, legal advisers and technical evaluators (OECD, n.d.; UNEP, n.d.-b; Al Nuaimi et al., 2020). Implementation literature similarly stresses guidance and capacity-building (OECD, n.d.; UNEP, n.d.-b).

Standard environmental clauses should be incorporated into procurement templates; the Digital Procurement Platform should support fields for environmental specifications, equivalent proof, life-cycle cost data and monitoring; implementation should be phased by procurement category; supplier engagement should be transparent and non-discriminatory; and grievance mechanisms should allow challenges to vague or disproportionate criteria while protecting well-designed climate requirements (United Arab Emirates Ministry of Finance, n.d.-a; United Arab Emirates Ministry of Finance, n.d.-b).

In synthesis, the UAE model is a procurement-cycle framework governed by the four-part legality test. Planning identifies climate impact and lower-carbon alternatives; specifications translate objectives into requirements; qualification uses environmental capacity only where necessary; award discloses and weights environmental criteria and life-cycle costs; performance turns promises into obligations; and review protects legality and institutional learning.

The model does not make every contract equally green. It ensures that when climate-neutrality criteria are used, they are legally defensible and practically meaningful. It also redefines the green administrative contract as a public contract in which sustainability and climate commitments become legally binding, measurable and enforceable obligations.

7. Discussion and Implications

The comparative findings suggest that sustainable procurement is moving from permissive policy language towards more structured obligations. Yet mandatory language alone does not guarantee environmental effect. A formally binding requirement may still fail where market capacity, evidentiary reliability, institutional coordination or enforcement are inadequate. The four-part test therefore treats legal validity and implementation as interdependent rather than sequential concerns (Böttge et al., 2023; Khater et al., 2026; Schoenmaekers, 2023).

The model also clarifies the relation between climate governance and administrative legitimacy. Climate objectives are long-term and technically complex, whereas procurement decisions must be contestable at a specific time by identified bidders. Connection, measurability and proportionality translate diffuse climate value into reasons that can be disclosed and reviewed. Enforceability carries those reasons into the contractual relationship. This is consistent with a broader climate-justice concern that public commitments require domestic procedures and institutions capable of giving them legal effect (Elhaw & Abo El Wafa, 2026).

The analysis is limited in two respects. It is doctrinal and does not test how UAE procuring entities or suppliers would respond to particular criteria. It also concentrates on federal law, using Dubai's policy only as an illustration. Pilot studies could therefore examine selected categories, compare bid participation and performance, and test whether the proposed criteria impose disproportionate costs. Those empirical questions do not displace the legal model; they are the next stage in assessing its practical effectiveness.

For UAE administrative law, the model connects public value with competitive legitimacy. Climate criteria refine the costs and benefits that count as value; they do not authorise a general preference for environmentally branded firms. Legitimacy depends on explaining the criterion's contractual relevance, assessment method and consequence for non-compliance. The result is reasoned administrative decision-making rather than policy endorsement alone.

8. Conclusion

Climate-neutral public procurement is legally feasible in the UAE, but it cannot rest on the vocabulary of sustainability alone. EU law demonstrates how specifications, labels, award criteria, life-cycle costing and performance clauses can pursue environmental value within equal treatment and transparency. French law shows why the inquiry should begin when the public need is defined. The UAE framework already contains a meaningful statutory opening through public value, sustainable development, environmental specifications, carbon-reducing products and transparent evaluation criteria.

The remaining task is one of legal design. The Climate-Neutral Procurement Legality Test requires a criterion to be connected to the contract, measurable or verifiable, proportionate and enforceable. Applied across planning, specification, qualification, award, performance and review, the test converts climate policy into reasons and obligations that bidders can understand and authorities can defend.

A green administrative contract, on this account, is not simply associated with an environmental strategy; it is a public contract in which climate commitments have been translated into binding and reviewable terms. Federal guidance, sector-specific pilots, standard clauses, digital evidence and professional training can give that concept institutional form. The model preserves competitive legitimacy while enabling procurement to contribute meaningfully to national climate objectives.

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Data Availability

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Ethics Statement

Not applicable. The study is doctrinal and involves no human participants, personal data or animal subjects.

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