When is Expertise-Based Deference Warranted?

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Deference to federal agency decision making is a central premise of administrative law. However, deference levels vary by subject and context. The Supreme Court also recently eliminated *Chevron* deference — deference to agencies' legal interpretation of statutes — while confirming that Congress may delegate authority to an agency. As a result, courts continue to review many agency decisions under the arbitrary and capricious standard set out in the Administrative Procedure Act (APA) and under that standard are particularly deferential to agency determinations involving scientific or technical questions. Courts' high degree of deference when reviewing these determinations is rooted in the presumption that agencies possess expertise in certain domains and are thus capable of reasoned decision making in those areas. Courts, by contrast, ordinarily lack specialized expertise.

However, the historically deep expertise and institutional knowledge of agency staff is being undercut by the Trump administration, which has eliminated offices, cut funding, ended the collection and distribution of data, and encouraged staff departures at unprecedented levels. Agencies are also now looking outside of their historic expertise to justify their decisions. As a result, it is important to reconsider the presumption of agency expertise underlying heightened deference.

This paper explains the presumption of agency expertise that underlies heightened deference and proposes a series of questions to assess when agencies are entitled to heightened deference. Specifically, does the decision call for application of expertise? Is expertise available within the agency? Has the agency consulted or relied upon relevant technical expertise? Are departures from expert recommendations scientifically justified? And is the agency's scientific process well-documented and traceable?

Each question is discussed in the context of EPA's proposal to withdraw its 2009 Endangerment Finding — the scientific determination that greenhouse gases endanger human health and welfare underpinning regulation of greenhouse gases in several sectors.[1] That proposal rests in part on the work of a handful of scientists chosen by the Secretary of Energy to critique mainstream climate science, and whose work forms one of the bases of EPA's proposed rescission of the Endangerment Finding for greenhouse gas emissions.[2] Deep cuts to EPA

[1] Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, 90 Fed. Reg. 36288, 36299 (Aug. 2, 2025).

[2] *Id.* (citing Climate Working Group, A Critical Review of Impacts of Carbon Dioxide Emissions on the U.S. Climate (July 23, 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf).

staffing and reliance on outside scientists rather than in-house expertise raises questions about the level of deference appropriate if a court reviews EPA's final rule.

Deference in the context of agency expertise: the apex of arbitrary and capricious review

Arbitrary and capricious review is the default approach when courts review an agency's implementation of or exercise of authority under a statute.[3] These actions include, for example, producing a NEPA review document or promulgating an environmental regulation.

While this type of review is deferential, it is not toothless. The Supreme Court's decision in *State Farm* provides the basic formulation, setting minimum standards agencies must clear, but cautioning courts against overreach: The court's review is "narrow" and "a court is not to substitute its judgment for that of the agency."[4] Even so, an agency must explain its reasoning, though a court may "uphold a decision of less-than-ideal clarity."[5] The Court explained that agency action is arbitrary or capricious if the agency "entirely failed to consider an important aspect of the problem," "offered an explanation for its decision that runs counter to the evidence before the agency," or failed to "examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'"[6]

The arbitrary and capricious standard provides some flexibility and depends on context.[7] Matters that involve an agency's use of a high level of technical expertise receive the greatest

[3] The APA provides the standard: agency action is to be upheld unless "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2). Arbitrary and capricious review is distinct from *Chevron* deference (ended by *Loper Bright v. Raimondo*, 603 U.S. 369 (2024)), under which courts deferred to agency interpretations of ambiguous statutes. After *Loper Bright*, an agency's interpretation of a statute will not receive deference, but an agency decision applying that statute, for example implementing a regulatory scheme, may continue to be reviewed under the arbitrary and capricious standard.

Some statutes provide their own standard of review, supplanting the default APA standard. In the case of Clean Air Act section 202(a) discussed in this paper, the Clean Air Act prescribes review procedures and standards that incorporate the arbitrary and capricious standard. 42 U.S.C. §§ 7607(d)(1)(K), (d)(9)(1). Courts applying this Clean Air Act-specified standard look to APA-standard jurisprudence.

[4] Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

[5] *State Farm*, 463 U.S. at 43 (quoting SEC v. Chenery Corp., 332 U.S. 194, 196 (1947)).

[6] *State Farm*, 463 U.S. at 43 (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)).

[7] Some scholars have characterized the standards as more indeterminate than flexible. *See* Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 737 n. 15 (2011) (citing scholarship on this issue).

deference.[8] This "extreme degree of deference" applies to the evaluation of scientific data and analysis involving statistics and modeling.[9] That standard reflects the common understanding that "[s]pecialized agencies with specified jurisdiction have the ability to address complex and technical matters with greater felicity and understanding than either members of Congress or generalist federal judges."[10]

Commentators have observed that agency expertise is rooted in agency staff and is expressed through administrative processes: "Agencies employ scientists, engineers, economists, and other technical experts who accumulate years of experience handling the particular sorts of matters and questions that lie within an agency's jurisdiction. Federal courts, on the other hand, lack these technical capacities and do not have the same degree of specialized experience."[11] At the same time, some "courts seem to predicate their extra deference not so much on the agency's superior scientific staff as on the fact that the agencies have made their decisions based on an elaborate and somewhat democratic analytical-deliberative process."[12]

Courts applying heightened deference avoid second-guessing agencies' scientific processes and substantive conclusions.[13] Courts "afford the agency discretion to choose among scientific models" and "'reject an agency's choice of a scientific model only when the model bears no rational relationship to the characteristics of the data to which it is applied.'"[14]

Traditionally, that heightened deference serves several purposes: it respects agency technical expertise, avoids making courts the arbiters of scientific questions they are ill-equipped to answer, allows agencies to solve problems within the bounds of their Congressionally granted authority, and preserves courts' role as procedural safeguards to ensure that agencies use transparent and reasonable processes.

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[8] Marsh v. Or. Natural Res. Council, 490 U.S. 360, 377 (1989); Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103, (1983) ("When examining this kind of scientific determination . . . a reviewing court must generally be at its most deferential.").

[9] Huntsman Petrochemical v. EPA, 114 F.4th 727, 735 (D.C. Cir. 2024). *See also* Appalachian Power Co. v. EPA, 135 F.3d 791, 802 (D.C. Cir. 1998) (per curium) (identifying statistics as "the prime example of those areas of technical wilderness into which judicial expeditions are best limited to ascertaining the lay of the land").

[10] Jonathan H. Adler, *Super Deference and Heightened Scrutiny*, 74 FLA. L. REV. 267, 280–81 (2022).

[11] *Id.*

[12] Wendy E. Wagner, *A Place for Agency Expertise: Reconciling Agency Expertise with Presidential Power*, 115 COLUM. L. REV. 2019, 2055 (2019). *See also* Meazell, *supra* note 7 at 738, 778–79 (focusing on agency processes as the basis for judicial deference).

[13] This substantive deference is related to, but distinct from, the presumption of regularity: a presumption that agencies follow procedural norms and rules and tell the truth about their processes and reasons.

[14] San Luis & Delta-Mendota Water Auth. v. Locke, 776 F.3d 971, 994 (9th Cir. 2014) (quoting San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 621 (9th Cir. 2014)).

Questions to help determine an appropriate level of expertise-based deference

In light of agencies' presumed expertise, courts infrequently probe the foundation upon which heightened deference is built. However, some scholars have observed that heightened expertise-based deference is based on unrealistic assumptions and may prove counterproductive by inhibiting, rather than promoting, solid science-based decision making.[15] And in an era where agencies are being drained of expertise and agency actions sometimes appear predetermined, rather than based on genuine scientific inquiry, we should reconsider the assumptions underpinning heightened deference.[16]

To be sure, much agency expertise still exists and reliance on outside information and analysis does not necessarily undermine its value, provided the agency makes an independent judgment about its reliability. However, given the vast reshaping of federal agencies underway, it will be important for courts to evaluate how agencies are making decisions.

The following series of questions may help courts and litigants assess agencies' capacity and processes to determine if heightened expertise-based deference is warranted. That evaluation should not mean that courts become super-agencies making technical judgments. To the contrary, a court that faults an agency for ignoring its own scientists' findings or failing to engage with established methodologies without explanation is not substituting its scientific judgment for that of the agency. Rather, that critical review ensures that deference serves its intended function of respecting genuine expertise instead of providing cover for decisions that bypass the very institutional competence that justifies judicial restraint.

Asking these questions in the context of arbitrary and capricious review aligns with how courts treat agency expertise in other contexts. Expertise and experience are theoretical underpinnings of *Auer/Kisor* deference, applied when an agency interprets its own ambiguous regulation.[17] *Skidmore* deference — in which courts offer agency interpretations the power to persuade — involves a sliding scale, offering more deference when an agency has expertise in the area at issue.[18] Here, too, courts can calibrate their level of deference to the reliability of

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[15] Meazell, *supra* note 7 at 737; Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 COLUM. L. REV. 1613, 1644, 1665–66 (1995).

[16] *See* Abbe R. Gluck, *Expertise after Chevron: A Potentially Pyrrhic Victory on Executive Control Over Preventative Care*, SCOTUSBLOG (July 14, 2025), https://www.scotusblog.com/2025/07/expertise-after-chevron-a-potentially-pyrrhic-victory-on-executive-control-over-preventive-care/ (raising questions about expertise-based deference in the context of decisions about what services are approved under the Affordable Care Act).

[17] Kisor v. Wilkie, 588 U.S. 558, 577–78 (2019).

[18] Gonzales v. Oregon, 546 U.S. at 269 (2006) (declining to afford *Skidmore* deference where an agency both lacked its own experience in the subject matter and declined to consult with outside experts).

the science-based process underlying an agency decision based on the indicators of reliability I discuss below.

Does the decision call for application of agency expertise?

As a threshold question, courts should determine whether a matter calls for agency expertise that merits heightened deference. As the Supreme Court has narrowed deference to agency legal interpretations while also embracing broad deference to questions of "fact," the incentives for agencies to couch their conclusions as resting on their technical expertise have increased.[19] While lines between factual findings, scientific findings, policy judgments, and legal interpretations may not always be bright, courts should be mindful of the divergent applicable standards of review and decline invitations to apply heightened deference that would decrease judicial scrutiny of determinations that are not actually technical or fact- or science-based.

Endangerment Finding context

This question may arise in the context of EPA's proposal to withdraw its 2009 Endangerment Finding.[20] The Supreme Court made clear in *Massachusetts v. EPA* that an endangerment finding under Clean Air Act section 202(a)(1) must be based on "scientific judgment" alone.[21] EPA is thus likely to argue that it should be entitled to heightened deference to its science-based answer to the determination required by the Clean Air Act. Yet, EPA's proposal also includes rationales that rest on policy considerations and new legal interpretations, neither of which is entitled to heightened deference. Courts should be mindful of the mixing of these rationales and careful to apply an appropriate standard of review.

Is expertise available within the agency?

Courts typically assume agencies have expertise without examining their capacity, but this assumption may not align with current agency staffing. For example, in July 2025 the Trump administration reported that departures and reductions will reduce EPA's staff by more than 3,700 employees.[22] This represents almost 23 percent of the agency's January 2025 staffing. Notably, EPA eliminated its Office of Research and Development; some employees were

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[19] *See Loper Bright*, 603 U.S. 369 (ending *Chevron* deference to agency interpretations of ambiguous statutes), Seven Cnty. Infrastructure Coal. v. Eagle Cnty., Colo., 145 S.Ct. 1487, 1512 (2025) (characterizing the level of detail required to comply with NEPA as a question entitled to "substantial deference," and emphasizing that "predictive or scientific judgments" about a project's environmental effects are entitled to the highest deference).

[20] Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, 90 Fed. Reg. 36288, 36299 (Aug. 2, 2025).

[21] Massachusetts v. EPA, 549 U.S. at 533 (2007).

[22] Press Release, EPA Announces Reduction in Force, Reorganization Efforts to Save Taxpayers Nearly Three-Quarters of a Billion Dollars (July 18, 2025), https://www.epa.gov/newsreleases/epa-announces-reduction-force-reorganization-efforts-save-taxpayers-nearly-three.

reassigned to a new office, others will be or have been laid off.[23] The agency also recently put on leave (or fired) employees who went public with concerns that the agency had weakened its support for science.[24] EPA has proposed a more than 50-percent cut to its budget for Fiscal Year 2026, reflecting both decreased staffing and deep funding cuts for nearly every EPA program.[25] Other agencies have lost expertise through reductions in force, reorganizations, relocations, or voluntary departures spurred by agency leadership decisions to sideline scientists and turn away from science-based policies.[26] Groups focused on ensuring sound science-based policymaking have been disbanded or emptied of experts whose views conflict with the administration's.[27] The Supreme Court has embraced an expansive view of the president's ability to remove officers,[28] reduce the federal workforce,[29] and reshape agencies,[30] which threaten the civil service and nonpartisan expertise.[31]

While many agency experts remain employed, in the context of large-scale changes in agency structures and the federal workforce, courts should not assume that relevant agency expertise or experience remains available even if a matter is within an agency's ordinary sphere of

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[23] Rob Stein, *Trump Administration Shuts Down EPA's Scientific Research Arm*, NPR (July 20, 2025), https://www.npr.org/2025/07/20/nx-s1-5474320/trump-epa-scientific-research-zeldin.

[24] Maxine Joselow, *EPA Suspends 144 Employees after They Signed a Letter Criticizing Trump*, NEW YORK TIMES (July 3, 2025), https://www.nytimes.com/2025/07/03/climate/epa-letter-administrative-leave.html; Matthew Daly, *EPA Fires Employees Who Publicly Criticized Agency Policies Under Trump,* AP (July 29, 2025), https://apnews.com/article/epa-employees-declaration-of-dissent-climate-698a6559e6cee8b45dc618ce80c12579.

[25] Congressional Research Service, *U.S. Environmental Protection Agency FY2026 President's Budget Request: In Brief* (June 23, 2025), https://www.congress.gov/crs-product/R48575.

[26] *See, e.g.*, Alison Snyder & Andrew Freedman, *Cuts Drain Federal Government of Technical Expertise*, AXIOS (Feb. 23, 2025), https://www.axios.com/2025/02/23/federal-government-cuts-drain-technical-expertise; Eric Katz, *USDA Asks Employees to Transfer to 'Critical' Vacancies, Suggests More Cuts Coming*, GOVERNMENT EXECUTIVE (July 16, 2025), https://www.govexec.com/workforce/2025/07/usda-asks-employees-transfer-critical-vacancies-suggests-more-cuts-coming/406763/; Michael Doyle, Scott Streater, Heather Richards & Jennifer Yachnin, *Trump Fired These Expert Interior Staffers. Here's What They Say*, E&E NEWS (Feb. 28, 2025), https://www.eenews.net/articles/trump-fired-these-expert-interior-staffers-heres-what-they-say/; Ahmed Aboulenein, Dan Levine & Michael Erman, *US CFC Chief Fired After Weeks in Role, Challenges Ouster As Four Top Officials Resign*, REUTERS (Aug. 28, 2025), https://www.reuters.com/business/healthcare-pharmaceuticals/us-cdc-chief-fired-after-weeks-role-challenges-ouster-four-top-officials-resign-2025-08-28/.

[27] *See* Rebecca Hersher, *The White House Took Down the Nation's Top Climate Report. You Can Still Find It Here*, NPR (July 1, 2025), https://www.npr.org/2025/07/01/nx-s1-5453501/national-climate-assessment-nca5-archive-report; Laura Ungar & Amanda Seitz, *RFK Jr. Ousts Entire CDC Vaccine Advisory Committee*, AP (June 9, 2025), https://apnews.com/article/kennedy-cdc-acip-vaccines-3790c89f45b6314c5c7b686db0e3a8f9.

[28] Trump v. Wilcox, 145 S.Ct. 1415 (2025) (granting a stay).

[29] Trump v. Am. Feder. Of Gov't. Emps, 145 S.Ct. 2635 (2025) (granting a stay).

[30] McMahon v. New York, 145 S.Ct. 2643 (granting a stay).

[31] *See* Nick Bednar & Peyton Baker, *A Primer on the Senior Executive Service*, Lawfare (Sept. 2, 2025), https://www.lawfaremedia.org/article/a-primer-on-the-senior-executive-service.

expertise. Where an agency argues for deference to its expert judgments, courts must consider whether the agency continues to hold that expertise.

Heightened deference is appropriate *only* where an agency is staffed by people with the credentials and experience to make expert judgments and the capacity to apply them.

Litigants may start to raise concerns about whether an agency has sufficient institutional capacity to make science-based decisions.[32] Questions may concern agencies' ability to conduct their own technical analyses and their capacity to meaningfully review work performed by permit applicants or contractors. In response, courts should continue to enable "an agency [to] have discretion to rely on the reasonable opinions of its own qualified experts."[33] However, a court should determine if an agency possesses the minimum expertise that could support the scientific or technical judgment to which the agency urges judicial deference,[34] for example by taking notice of publicly reported reductions and restructuring. Both courts and litigants should consider information about agency staffing that could shed light on the continued availability of agency expertise.

Endangerment Finding context

If EPA finalizes its elimination of the Endangerment Finding, a court might ask whether, given deep cuts to EPA staff, the agency retains the scientific expertise to evaluate the scientific questions posed by Clean Air Act section 202(a)(1). When making the Endangerment Finding in 2009, the agency's Climate Change Division within the Office of Atmospheric Programs prepared a technical support document to assess the scientific analyses underlying its determination.[35] Today, the Trump administration is planning to close this office,[36] in addition

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[32] *Cf.* United Steelworkers of America, AFL-CIO-CLC v. Marshall, 647 F.2d 1189, 1216 (D.C. Cir. 1980) (observing as "ironic" an agency's admission that it had to hire outside consultants because it lacked sufficient staff expertise but also sought deference to its expertise, though ultimately upholding the use of consultants where the agency also exercised its independent judgment over those recommendations); Alaska Oil & Gas Ass'n v. Pritzker, 840 F.3d 671, 676 (9th Cir. 2016) (identifying the makeup of a team of experts whose work supported the agency's proposed rule); Western Watersheds Project v. Kraayenbrink, 632 F.3d 472, 479 (9th Cir. 2011) (discussing the makeup of a team from whose recommendations the agency departed).

[33] *Marsh*, 490 U.S. at 378; *see also* Ethyl Corp. v. EPA, 541 F.2d 1, 36 (D.C. Cir. 1976).

[34] A related issue that is beyond the scope of this paper is how courts should handle agency reliance on lack of capacity as a rationale for deregulation or inaction. Scholars have argued that intentional draining of agency capacity cannot be a valid rationale for inaction. Jody Freeman & Sharon Jacobs, *Structural Deregulation*, 135 HARV. L. REV. 585, 663-64 (2021). *Cf.* Brower v. Evans, 257 F.3d 1058, 1071 (9th Cir. 2001) ("the Secretary cannot use insufficient evidence as an excuse for failing to comply with the statutory requirement").

[35] Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, Appendix B (Dec. 7, 2009), https://www.epa.gov/sites/default/files/2016-08/documents/endangerment_tsd.pdf.

[36] Press Release, EPA Announces Next Phase of Organizational Improvements to Better Integrate Science into Agency Offices, Deliver Clean Air, Land, and Water to All Americans, US EPA (May 2, 2025), https://www.epa.gov/newsreleases/epa-announces-next-phase-organizational-improvements-better-integrate-

to other deep cuts to EPA's staff. A court reviewing a challenge to the potential Endangerment Finding rescission could take notice of these cuts as a reason to explore whether the alleged scientific basis for EPA's decision warrants heightened deference.

Has the agency consulted or relied upon relevant technical experts?

An agency may have adequate scientific or technical expertise available but not rely on that expertise to reach the judgment in question. While a court must allow an agency "to rely on the reasonable opinions of its own qualified experts," courts should not afford undue deference where an agency has not done so.

Courts' discussion of their deferential review of agency decisions often implies that an agency has relied on its in-house experts. Courts less frequently make an explicit statement that an agency has relied on its experts and its decision is thus entitled to heightened deference. The latter approach, where a court affirmatively finds agency reliance on experts as a predicate to heightened deference, better protects against agencies sidelining experts directly, allowing inadequate time or resources for experts' meaningful participation, relying too heavily on outside information without expert review, or inserting political considerations into scientific questions.

Although agencies may rely on external information, they must retain and use their own expertise to assess that information. Courts have sometimes faulted agencies for relying too much on information or conclusions provided by outside parties rather than applying their own expertise: "An agency abdicates its role as a rational decision-maker if it does not exercise its own judgment, and instead cedes near-total deference to private parties' estimates."[37] Similarly, agencies may not ignore, without good reason, the experience and observations of their own experts.[38] In such instances no deference is due, as while "agency expertise deserves deference, it deserves deference only when it is exercised."[39]

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science-agency, Jean Chemnick & E&E News, *EPA Reorganization Signals End to Climate Work*, SCIENTIFIC AMERICAN (May 6, 2025), https://www.scientificamerican.com/article/trump-epa-reorganization-signals-end-to-climate-work, Sean Reilly & Kevin Bogardus, *EPA Launches Air Office Revamp Amid Deregulatory Push*, E&E NEWS (Sept. 30, 2025), https://www.eenews.net/articles/epa-launches-air-office-revamp-amid-deregulatory-push/.

[37] Texas Off. of Pub. Util. Couns. v. FCC, 265 F.3d 313, 328 (5th Cir. 2001).

[38] Am. Tunaboat Ass'n v. Baldrige, 738 F.2d 1013, 1016–17 (9th Cir. 1984); *see also* Sierra Club v. Lynn, 502 F.2d 43, 59 (5th Cir. 1974) (noting that, under NEPA, an agency may not "reflexively rubber stamp[]" outside information and must "independently perform its reviewing, analytical and judgmental functions"); Asbestos Disease Awareness Org. v. Wheeler, 508 F.Supp.3d 707, 731–32 (N.D. Cal. 2020) (faulting EPA for failing to follow its own science advisory committee's recommendation to collect more data rather than rely on industry submissions and modeling).

[39] Cities of Carlisle and Neola, Iowa v. FERC, 741 F.2d 429, 433 (D.C. Cir. 1984).

Similarly, litigants may question whether an agency should be afforded deference for scientific conclusions if agency experts have been sidelined or ignored. Commenters on proposed regulatory changes may also submit comments that require the agency to explain how its process involved agency experts. The administrative record should document the agency's process and involvement of experts. Failing such documentation, courts may have reason to order supplementation of the record to allow for meaningful review (or to remand the matter to the agency for further explanation).

Endangerment Finding context

The scientific conclusions in EPA's proposed Endangerment Finding suggest that EPA primarily relied on a draft report by five outside scientists convened by the Department of Energy (DOE), rather than EPA's own experts.[40] It is not clear from EPA's proposal whether EPA's own technical staff reviewed the conclusions in that report, which diverge sharply from EPA's prior position and broad scientific consensus. EPA also has not provided any equivalent document to the technical support document used in its 2009 Finding. It will thus be important to ask whether EPA's final rule is based on an exercise of its expertise that warrants deference.

NEPA context

This concern is also acute in the context of NEPA reviews, particularly after the One Big Beautiful Bill Act created an opt-in, fee-based process for expedited reviews [41] and the Department of the Interior began using "alternative arrangements" for expedited review of extractive energy projects.[42] Expedited timelines may encourage the use of applicant- or contractor-provided NEPA documents. While agencies retain review authority, staff reductions may compromise agencies' capacity to conduct meaningful review of such outside information and analysis. Under these circumstances, litigants may question the application of heightened deference to resulting agency judgments.

Heightened deference is inappropriate when limited staff capacity prevents agencies from conducting a rigorous review of submitted materials.

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[40] Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, 90 Fed. Reg. 36288 (Aug. 2, 2025) (citing Climate Working Group, A Critical Review of Impacts of Carbon Dioxide Emissions on the U.S. Climate (July 23, 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf).

[41] 42 U.S.C. § 4336(f) (enacted July 4, 2025).

[42] U.S. Department of the Interior, Alternative Arrangements for NEPA Compliance (Apr. 23, 2025), https://www.doi.gov/sites/default/files/documents/2025-04/alternative-arrangements-nepa-during-national-energy-emergency-2025-04-23-signed_1.pdf.

Are departures from expert recommendations scientifically justified?

Even where an agency initially relies on staff expertise to study a problem and propose an answer, it may ignore its experts' recommendations to reach a conflicting answer. Agencies are not entitled to heightened deference if policy or political judgments supplant expert analysis or recommendations. In these instances, courts will need to assess whether an agency's science-based process is sufficiently insulated from undue political influence.

Some courts have questioned departures from the recommendations of scientific bodies[43] or seen "executive override of expert judgments by professionals or agencies" as a reason to reject agency decisions that should have been based on science alone,[44] but in other instances have found no error when political intervention occurs in an otherwise science-based process.[45] As one scholar has noted, "Clearly . . . if some of the decisions are suggested by White House staff off the record and outside of the analysis process, then the courts' basis for deference no longer holds. Judges are no less technically competent than political officials; indeed with respect to science-intensive analyses, their distance from politics may actually make them more competent."[46]

Insisting on science-based decision making when Congress directs agencies to answer scientific questions promotes the integrity of the administrative process and is within courts' role as arbiters of that process. While courts avoid inquiring into the mental state of agency

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[43] *See* Mississippi v. EPA, 744 F.3d 1334, 1354–58 (D.C. Cir. 2013) (questioning EPA's departure from the recommendations of an expert review panel, though ultimately concluding that the panel's recommendation was too imprecise to require a reasoned response from EPA).

[44] *See* Jody Freeman & Adrian Vermule, *Massachusetts v EPA: From Politics to Expertise*, 2007 SUP. CT. REV. 51, 93 (2007) (placing *Massachusetts* within a broader set of cases in which courts have showed suspicion about "politically motivated executive usurpation of judgments normally left to experts"); Earth Island Institute v. Hogarth, 494 F.3d 757, 768 (9th Cir. 2007) (rejecting an agency decision that should have been science-based but was improperly influenced by political concerns); Cottonwood Envt. Law Ctr. v. U.S. Forest Serv., 789 F.3d 1075, 1078 (9th Cir. 2015) (noting agency revision after recognizing political interference with scientific decision); Natural Resources Defense Council v. EPA, 824 F.2d 1146, 1163 (D.C. Cir. 1987) (faulting EPA for inserting questions about technological feasibility into an inquiry that should have focused on health).

[45] *See* Lisa Heinzerling, *Response: Classical Administrative Law in the Era of Presidential Administration*, 90 TEXAS L. REV. *See also* 171, 178 (2014) (critiquing the D.C. Circuit's 1981 decision in *Sierra Club v. Costle* for "allow[ing] agencies to engage in a charade in which they offer up a technical explanation as a cover for a political decision and condon[ing] political meddling with expert-driven agencies").

[46] Wagner, *supra* note 12 at 2055 (focusing on the opaque review by the White House's Office of Information and Regulatory Affairs). *See also See* Richard J. Pierce, Jr., Nostalgia for Agency Expertise, THE REGULATORY REVIEW (2022), https://www.theregreview.org/2022/07/19/pierce-nostalgia-agency-expertise/ ("One potential way of solving that problem is to say that a court should not defer to EPA's decision to issue the [Affordable Clean Energy Plan] because it was not the product of agency expertise. The White House and the president's appointees at EPA dictated ACE. The expert staff at EPA just created an administrative record that described and explained the decision made by political appointees."); E. Donald Elliot, *Strengthening Science's Voice at EPA*, 66 LAW & CONTEMP. PROBS. 45, 51 (2003).

decisionmakers, courts are not prevented from understanding the process that led to an agency's decision. As one commentator observed, "It seems bizarre that courts must defer to an EPA decision based on the Agency's alleged scientific 'expertise' if all the scientists at the Agency opposed the decision on the science but were overruled by the politicians. In deciding how much deference to give an agency decision based on alleged expertise, a court should be entitled to know whether the particular decision is grounded on science or policy."[47] As above, if an administrative record does not adequately demonstrate the basis for departures from scientific recommendations, courts may order supplementation of that record, or may simply not apply heightened deference.

Endangerment Finding context

Once EPA's Endangerment Finding proposal is final, litigants and a court will need to examine the record to see if EPA's experts were involved in the decision-making process and to understand if the final rule's approach to any scientific conclusions reflects their analyses, conclusions, and recommendations. To the extent the final rule relies on a scientific justification, heightened deference would be unwarranted if indeed the agency's experts were either not part of the process or were overruled without scientific justification.

Is the agency's scientific process well-documented and traceable?

Although courts do not typically inquire into agency capacity and use of expertise, courts regularly assess agency decision making to ensure that an agency has not relied on improper factors, that its decision is traceable and well-reasoned, and that it has not ignored an important part of the problem. As the Ninth Circuit observed, "[t]he mere fact that an agency is operating in a field of its expertise does not excuse us from our customary review responsibilities."[48] The court also explained that "[t]he deference accorded an agency's scientific or technical expertise is not unlimited. The presumption of agency expertise can be rebutted when its decisions, while relying on scientific expertise, are not reasoned."[49]

Courts could integrate this customary review of agency processes into this broader series of questions, ensuring that agencies have provided support and coherent explanations for their methodology and conclusions,[50] reasoning that can be discerned by the public and reviewing

[47] Elliot, *supra* note 49 at 51.

[48] Northwest Coalition for Alternatives to Pesticides v. EPA, 544 F.3d 1043, 1052 n.7 (9th Cir. 2008).

[49] *Brower*, 257 F.3d at 1067 (internal citations omitted). *See also San Luis & Delta-Mendota Water Auth.*, 776 F.3d at 994–95.

[50] Fox v. Clinton, 684 F.3d 67, 75 (D.C. Cir. 2012); *Lands Council,* 537 F.3d at 994; United Techs. Corp. v. U.S. Dep't of Def., 601 F.3d 557, 562 (D.C. Cir. 2010); *Huntsman Petrochemical*, 114 F.4th at 735.

court,[51] meaningful responses to commenters that raise substantial problems with its assumptions, analysis, or conclusions,[52] and explanations that avoid reliance on impermissible factors.[53] Deference is appropriate only where a court is first satisfied that an agency has not relied on impermissible factors. The highest deference should be reserved for agency processes that reflect established methodologies, transparency, peer review, and independence from non-science-based considerations.[54]

Endangerment Finding context

As EELP discusses in our analysis of EPA's Endangerment Finding proposal, EPA proposes to ignore the broad scientific consensus on the harms associated with climate change as well as the costs of those harms. EPA's 2009 Endangerment Finding bore hallmarks of a science-based process warranting heightened deference: it relied upon assessments by the US Global Change Research Program, the Intergovernmental Panel on Climate Change, and the National Research Council,[55] and on EPA's own technical support document prepared by a team of EPA experts and peer reviewed by a variety of outside experts.[56] In contrast, EPA's current proposal relies on a report by five scientists selected by DOE[57] whose analysis departs from broadly accepted

[51] *State Farm*, 463 U.S. at 43; Alaska Dep't of Envt. Conservation v. EPA, 540 U.S. 461, 497 (2004); 250 Montana v. Haaland, 50 F.4th 1254, 1266 (9th Cir.) (declining to defer to a conclusion regarding the insignificance of greenhouse gas emissions where the agency had identified no science-based criterion or supporting evidence).

[52] Business Roundtable v. SEC, 647 F.3d 1144, 1148–56 (D.C. Cir. 2011).

[53] Riverkeeper, Inc. v. EPA, 358 F.3d 174, 195 (2d Cir. 2004) ("Having decided that EPA properly considered those factors, our review becomes more deferential.").

[54] *See* Defenders of Wildlife v. U.S. Forest Service, 94 F.4th 1210, 1234 (10th Cir. 2024) (using this formulation in the context of the ESA's best-available-science standard).

[55] Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,510–11 (Dec. 15, 2009) (explaining that these assessments "represent the best reference materials for determining the general state of knowledge on the scientific and technical issues before the agency in making an endangerment determination. No other source of information provides such a comprehensive and in-depth analysis across such a large body of scientific studies, adheres to such a high and exacting standard of peer review, and synthesizes the resulting consensus view of a large body of scientific experts across the world.").

[56] Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act (Dec. 7, 2009), https://www.epa.gov/sites/default/files/2016-08/documents/endangerment_tsd.pdf ("In addition to its reliance on existing and recent synthesis reports, which have each gone through extensive peer-review procedures, [the technical] document also underwent a technical review by 12 federal climate change experts, internal EPA review, interagency review, and a public comment period.").

[57] Climate Working Group, A Critical Review of Impacts of Carbon Dioxide Emissions on the U.S. Climate (July 23, 2025) https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf.

climate science. Comments on EPA's proposal and DOE's report highlight this misrepresentation of the current state of climate science.[58]

Litigants and courts are likely to be skeptical of a final rule that fails to explain EPA's substantial reliance on a report by just five people rather than the government's own climate experts or on the overwhelming consensus of the scientific community. This is particularly so if EPA finalizes its decision quickly, as the agency has indicated.[59] A speedy decision would more broadly highlight the importance of ensuring that EPA has indeed relied on genuine expertise, considered public comments, and made an informed decision through a valid process and based on legitimate factors.

Recommendations

There are a range of steps courts can take to assess the degree of agency expertise reflected in agency decisions. Courts need not hold *Daubert*-style hearings on the substantive integrity of agency science[60] or otherwise make substantive calls about scientific questions.[61] Instead, courts could require an agency to certify as part of its administrative record that documents its technical/scientific capacity and briefly explain whether and how expertise formed the basis of its decision.[62] Courts could take notice of public information and raise questions about agency

[58] *See, e.g.*, National Academies of Sciences , Engineering, and Medicine, Comment No. EPA-HQ-OAR-2025-0194-0756, Comment on Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards (filed Sept. 18, 2025), available at https://www.nationalacademies.org/news/2025/09/national-academies-publish-new-report-reviewing-evidence-for-greenhouse-gas-emissions-and-u-s-climate-health-and-welfare; Andrew Dessler & Robert Kopp, Comment on A Critical Review of Greenhouse Gas Emissions on the U.S. Climate, U.S. Department of Energy (filed Aug. 30, 2025), available at https://drive.google.com/file/d/1PwAR8I9YYmPhbQ6CRekHkroJGMbjbX7l/view.

[59] Spring 2025 EPA Regulatory Plan: Greenhouse Gas Endangerment Finding and Motor Vehicle Emission Standards Reconsideration, RIN 2060-AW71, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202504&RIN=2060-AW71.

[60] For a debate on this topic, *see* Alan Charles Raul & Julie Zampa Dwyer, *"Regulatory* Daubert*": A Proposal to Enhance Judicial Review of Agency Science by Incorporating* Daubert *Principles into Administrative Law*, 66 LAW & CONTEMP. PROBS. 7 (2003); Thomas O. McGarity, *On the Prospect of "Daubertizing" Judicial Review of Risk Assessment*, 66 LAW & CONTEMP. PROBS. 155 (2003) (calling the idea of assigning a scientific gatekeeper role to courts reviewing agency technical assessments "a profoundly bad idea").

[61] See Stephanie Tai, *Uncertainty about Uncertainty: The Impact of Judicial Decisions on Assessing Scientific Uncertainty*, 11 U. PA. J. CONST. L. 671, 696 (2009) (warning about the dangers of courts making their own determinations on scientific issues).

[62] Such a statement about an agency's decision-making process would be entitled to a presumption of regularity. That presumption may be suspended where government decision making process bears indicia of irregularity. In the context of science-based decision making, a court finding the presumption of regularity overcome may second-guess an agency's statements about its use of agency expertise.

capacity and resources and probe the extent to which an agency's process involved genuine expert engagement with scientific questions.

Courts could also apply a sliding scale of deference, affording the most deference to agency processes that display the highest degree of scientific integrity and transparency, and no heightened deference (or perhaps no deference at all) to processes that, while ostensibly involving science, are not genuinely based on agency expertise.[63] An agency decision that should be science-based but is undeserving of deference is likely also arbitrary and capricious and must be set aside under the APA.

[63] *See, e.g.*, Louis J. Virelli III, *Political Expertise and Judicial Review*, NOTICE & COMMENT (Mar. 25, 2023), https://www.yalejreg.com/nc/political-expertise-and-judicial-review-by-louis-j-virelli-iii/(discussing a similar proposal in William Araiza's *Rebuilding Expertise: Creating Effective and Trustworthy Regulation in an Age of Doubt*).