TAKE ME OUT TO THE BALL GAME: FAIR COLLECTIVE STORAGE ORDER TAKINGS UNDER PENNSYLVANIA'S CARBON CAPTURE AND SEQUESTRATION ACT

I. CALLING BALLS AND STRIKES

Pennsylvania's new Carbon Capture and Sequestration Act (CCSA) governs carbon capture and storage (CCS) project development in our Commonwealth.[1] Section 5 of the CCSA allows CCS project developers with 75% or more of the necessary pore space ownership to apply to the Environmental Hearing Board (EHB) for a collective storage order (CSO) after the developer makes a good faith effort to find and negotiate with all pore space owners.[2] Because Section 5 allows the Commonwealth to take pore space from "unknown, nonlocatable and nonconsenting pore space owners" and give it to project developers, the CCSA provides for compensation according to a "fair

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[1] Carbon Capture and Sequestration Act, 32 P.S. §§ 696.1–696.11 (2024) (stating new law allowing and defining carbon capture and sequestration in Pennsylvania). For a quick summary of the CCSA, see Kevin Garber, Gina Buchman & Sean McGovern, Pennsylvania's Carbon Capture and Sequestration Act of 2024, BABST CALLAND (July 23, 2024), https://www.babstcalland.com/news-article/pennsylvanias-carbon-capture-and-sequestration-act-of-2024/ (summarizing CCSA and its "three key aspects—pore space ownership, permitting and operating an injection and storage facility, and liability and long-term responsibility for sequestered [carbon dioxide]").

[2] See 32 P.S. § 696.5 (assigning CSO duty to EHB and listing statutory criteria).

market valuation of the collective interest of the pore space owners."[3] The EHB must determine the basis for fair market valuation and its distribution to eligible pore space owners.[4] To inform future conversations about CSOs in Pennsylvania, Section II of this Blog Post analyzes the taking of pore space under the CCSA and Section III analyzes the fair market valuation of such property.[5]

II. TAKING YOUR BASE

Kelo v. City of New London,[6] a controversial United States Supreme Court case, held that a sovereign could take property from one private party and transfer it to another private party for the "public purpose" of economic

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[3] See 32 P.S. § 696.5(b)(4) (providing for fair market valuation); see also U.S. CONST. amend V (stating Takings Clause); PA. CONST. art. I, § 10 (stating Commonwealth takings clause); cf. Nw. Landowners Ass'n v. State, 978 N.W.2d 679, 691–92 (N.D. 2022) (rejecting provisions of North Dakota statute allowing third-party operators to inject substances into landowners' pore space without consent or compensation as unconstitutional per se taking).

[4] 32 P.S. § 696.5(b)(4) (assigning responsibility to EHB for determining basis of fair market valuation and distribution of compensation).

[5] For a discussion of pore space takings under the CCSA, see infra notes 6–39. For a discussion of fair market valuation of pore space taken under the CCSA, see infra notes 40–54.

[6] 545 U.S. 469, 469 (2005) (introducing case).

development.[7] In response to Kelo's encroachment onto traditional property rights, the Pennsylvania General Assembly enacted the Property Rights Protection Act (PRPA) in 2006.[8] The General Assembly sought through PRPA to "'prevent the type of situation that occurred in the Kelo case,' that is, to stop eminent domain from being 'used for economic development without a finding of blight.'"[9] This legislative reaction expressed the General Assembly's intent to protect private property rights in response to Kelo.[10]

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[7] See id. at 483–84 (holding that carefully formulated local economic development plan enacted pursuant to state statute satisfied Takings Clause "public use requirement" based on its "public purpose").

[8] Wolfe v. Reading Blue Mountain, 320 A.3d 1164, 1171 n.6 (Pa. 2024) (describing General Assembly's reaction against Kelo); see generally Property Rights Protection Act, Act of May 4, 2006, P.L. 112 & 148, 26 Pa.C.S. §§ 201–208 (constraining certain eminent domain powers).

[9] Wolfe, 320 A.3d at 1171 n.6 (quoting PA. S. JOURNAL, 189th G.A., 2005 Reg. Sess. No. 73, 1064 (Dec. 7, 2005)) (stating General Assembly's intent in enacting PRPA).

[10] See id. (protecting private property rights in response to Kelo).

Pennsylvania courts apply a strengthened variant of the public purpose test to eminent domain actions, which statutes such as PRPA may further limit.[11] Notably, in 2016, the Pennsylvania Supreme Court applied its strengthened conception of the public purpose test to hold unconstitutional an eminent domain provision in Robinson Township v. Commonwealth.[12] Act 13 of Feb. 14, 2012 (Act 13) contained Subsection 3241(a), which allowed natural gas companies to invoke eminent domain through the Commonwealth if they acquired property interests in "at least 75% of the area of the proposed storage reservoir."[13] Subsection 3241(a) failed the public purpose test because the Commonwealth did not—and could not—claim that the public was the "'primary and paramount' beneficiary" of the taking.[14]

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[11] See Robinson Twp. v. Commonwealth., 147 A.3d 536, 586 (Pa. 2016) (summarizing strengthened public purpose test and noting that statutes may further limit exercises of eminent domain).

[12] 147 A.3d 536, 586, 588 (Pa. 2016) (enjoining and holding unconstitutional 58 Pa.C.S. § 3241(a)).

[13] Act 13 of Feb. 14, 2012, P.L. 87, 58 Pa.C.S. § 3241(a) (including unconstitutional provision allowing natural gas corporations to appropriate pore space after gaining interest in 75% of proposed storage reservoir).

[14] See Robinson Twp., 147 A.3d at 586, 588 (quoting In re Opening Priv. Rd. for Benefit of O'Reilly, 5 A.3d 246, 258 (Pa. 2010)) (rejecting eminent domain provision using primary and paramount beneficiary test).

Here, in the similar context of the CCSA's 75% requirement, the EHB and Pennsylvania courts should presume "[t]hat the General Assembly does not intend to violate the Constitution of the United States or of this Commonwealth."[15] Furthermore, they should presume "[t]hat the General Assembly intends to favor the public interest as against any private interest."[16] Thus, administrative and judicial review of CSOs should account for the primary and paramount beneficiary language that defines the public purpose test for constitutional takings in Pennsylvania.[17] The General Assembly has declared that "it is in the public interest to promote the geologic storage of carbon dioxide," and that "the capture and geologic storage of carbon dioxide will benefit this Commonwealth and the global environment by reducing greenhouse gas emissions and will help to ensure the viability of the energy and power industries of this Commonwealth, to the

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[15] See 1 Pa.C.S. § 1922(3) (defining interpretive canon of presumptive constitutionality).

[16] See 1 Pa.C.S. § 1922(5) (defining interpretive canon favoring public interest over private interests).

[17] See Wolfe v. Reading Blue Mountain, 320 A.3d 1164, 1177–78 (Pa. 2024) (asserting dominance of "primary and paramount beneficiary" test in Pennsylvania's takings analysis); see also Robinson Twp., 147 A.3d at 586, 588 (rejecting underground natural gas storage eminent domain provision using primary and paramount beneficiary test).

economic benefit of Pennsylvania and its residents."[18] But this language, on its own, is insufficient.[19]

The General Assembly's declarations indicate the CCSA's general intent, but they do not answer dispositively the EHB's takings inquiry.[20] Instead, the constitutional question remains whether the public is the primary and paramount beneficiary of the taking.[21] In Robinson Township, the Pennsylvania Supreme Court rejected Subsection 3241(a)'s projected public economic benefit as "speculative" and "incidental."[22] This suggests that if Pennsylvania courts view these benefits as primarily benefitting private interests within particular segments of the energy industry, the General Assembly's declaration in the CCSA of a

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[18] 32 P.S. § 696.2(1)–(2) (stating findings and declarations regarding CCSA).

[19] See Robinson Twp., 147 A.3d at 586, 588 (rejecting underground natural gas storage eminent domain provision using primary and paramount beneficiary test).

[20] See 1 Pa.C.S. § 1922(3), (5) (defining interpretive canons favoring constitutionality over unconstitutionality and public interest over private interest); Wolfe, 320 A.3d at 1177–78 (asserting primacy of primary and paramount beneficiary test in Commonwealth's takings analysis).

[21] See Wolfe, 320 A.3d at 1177–78 (reasserting primary and paramount beneficiary test).

[22] Robinson Twp., 147 A.3d at 586, 588 (rejecting underground natural gas storage economic benefit because failed to constitute a primary and paramount public benefit).

similar kind of "economic benefit" and benefit to "the viability of the [Commonwealth's] energy and power industries" may not equate to a primary and paramount public benefit.[23]

Instead, the EHB should consider relying on the benefits of reduced atmospheric greenhouse gas emissions to define CCSA projects as potentially constituting a primary and paramount public benefit.[24] This approach makes sense for three reasons.[25] First, reduced atmospheric greenhouse gas emissions benefit the entire public, in contrast with the Pennsylvania Supreme Court's view that the economic development from Subsection 3241(a) of Act 13 would have

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[23] See id. (holding economic benefit from underground natural gas storage constitutionally insufficient); Wolfe, 320 A.3d at 1171 n.6 (noting General Assembly's reaction to protect Pennsylvania citizens' private property rights in response to Kelo's holding that economic development constituted public purpose).

[24] See Wolfe, 320 A.3d at 1177–78 (restating primary and paramount beneficiary test that reduced atmospheric greenhouse gas emissions may overcome).

[25] For a discussion of reasons to define atmospheric greenhouse gas emissions as a primary and paramount public benefit, see infra notes 26–30 and accompanying text.

primarily benefited private companies building natural gas storage projects.[26] Second, to define reduced atmospheric greenhouse gas emissions as potentially constituting a primary and paramount public benefit would reflect the General Assembly's first and second findings in the CCSA.[27] Thus, it would align with the plain meaning and intent of the statute.[28] Third, safely reduced atmospheric greenhouse gas emissions fulfill the Commonwealth's fiduciary duties as a public trustee under Article I, Section 27 of the Pennsylvania Constitution, especially as

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[26] See Robinson Twp., 147 A.3d at 588 (holding provision lacked public purpose); 32 P.S. § 696.2(2) (declaring benefit of greenhouse gas reductions to Commonwealth and global environment).

[27] See 32 P.S. § 696.2(1)–(2) (finding geologic storage of carbon dioxide to be in public interest and to "benefit this Commonwealth and the global environment by reducing greenhouse gas emissions . . .").

[28] See 1 Pa.C.S. § 1922(4) (defining interpretive canon presuming "[t]hat when a court of last resort has construed the language used in a statute, the General Assembly in subsequent statutes on the same subject matter intends the same construction to be placed upon such language."). Under this presumption, the General Assembly adopted the primary and paramount beneficiary test as the Pennsylvania Supreme Court interpreted it in Robinson Township and elsewhere. See id.

those duties relate to "generations yet to come."[29] This robust constitutional backing bolsters the likely success of defining CCSA atmospheric greenhouse gas reductions as potentially constituting primary and paramount public benefits.[30]

The leakage or release of stored carbon dioxide may endanger members of the public through concentrations in confined surface and subsurface areas.[31] Moreover, a high rate of leakage or a large release will diminish the public benefit by emitting carbon dioxide into the atmosphere.[32] To ensure that any takings of

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[29] See PA. CONST. art. I, § 27 (enshrining environmental public trust in bill of rights); Marcellus Shale Coal. v. Dep't of Env't Prot., 292 A.3d 921, 942 (Pa. 2023) (quoting Pa. Env't Def. Found. v. Commonwealth, 161 A.3d 911, 931 n.23 (Pa. 2017)) (stating fiduciary duties of prudence, loyalty, and impartiality to public trust apply to all branches of Commonwealth).

[30] See PA. CONST. art. I, § 27 (providing strongest form of legal authority).

[31] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CARBON DIOXIDE CAPTURE AND STORAGE 242–44, 246–50 (Bert Metz et al. eds., 2005), https://www.ipcc.ch/site/assets/uploads/2018/03/srccs_wholereport.pdf (describing leakage pathways and possible local and regional environmental hazards).

[32] See id. at 257 ("Any discussion of long-term CO2 geological storage also involves intergenerational liability and thus justification of such activities involves an ethical dimension."). "Some aspects of storage security, such as leakage up abandoned wells, may be realized only over a long timeframe, thus

pore space provide the intended primary and paramount public benefit, the EHB should categorically reject CSO applicants and their related entities that are out of regulatory compliance.[33] The EHB should also review the compliance histories of applicants and related entities for concerning patterns of past noncompliance.[34] In the context of air pollution, the General Assembly has empowered the Department of Environmental Protection (DEP) to refuse plan approvals and permits for

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posing a risk to future generations." Id. Because 32 P.S. § 696.11 allows the Department of Environmental Protection (DEP) to issue project completion certificates of project completion after fifty years that transfer responsibility and liability for the sequestered carbon to the Commonwealth, carbon sequestration projects strongly implicate the Commonwealth's fiduciary duties to future generations under Article I, Section 27 of the Pennsylvania Constitution. See Marcellus Shale Coal., 292 A.3d at 942 (quoting Pa. Env't Def. Found., 161 A.3d at 931 n.23 (stating fiduciary duties of prudence, loyalty, and impartiality to public trust apply to all branches of Commonwealth government).

[33] See 35 P.S. § 4007.1(a) (requiring categorical rejection of air pollution plan approvals and permits if applicant is out of compliance and not correcting violation to satisfaction of DEP).

[34] See 35 P.S. § 4007.1(b) (allowing discretion to refuse air pollution plan approvals and permits based on compliance history of applicant or permittee and related entities).

noncompliant applicants.[35] Here, the constitutional takings inquiry demands a similar regulatory compliance requirement to ensure that the public receives the primary and paramount benefit.[36]

In sum, the EHB should consider defining reduced atmospheric greenhouse gas emissions through CCS as constituting a primary and paramount public benefit that meets the requirements of Commonwealth takings analysis.[37] Additionally, the EHB's primary and paramount beneficiary analysis should review, at minimum, the applicant's and its related entities' compliance statuses

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[35] 35 P.S. § 4007.1 (providing for denial of permits and plan approvals under the Air Pollution Control Act due to noncompliance).

[36] See Robinson Twp. v. Commonwealth, 147 A.3d 536, 586, 588 (Pa. 2016) (rejecting underground natural gas storage per se taking because it did not constitute primary and paramount public benefit); 1 Pa.C.S. § 1922(4) (stating presumption that General Assembly incorporated Pennsylvania Supreme Court's relevant statutory interpretations).

[37] See 32 P.S. § 696.2(1)–(2) (finding geologic storage of carbon dioxide to be in public interest and to "benefit this Commonwealth and the global environment by reducing greenhouse gas emissions . . .").

and histories.[38] Such definition and review navigate potential constitutional takings issues in accordance with the General Assembly's intent.[39]

III. Fair or Foul Territory

CCSA Subsection 5(b)(4) provides in part that a CSO "shall identify the compensation to be paid to unknown, nonlocatable and nonconsenting pore space owners and the basis for fair market valuation of the collective interest of the pore space owners."[40] The General Assembly has defined fair market value for eminent domain purposes as "the price which would be agreed to by a willing and informed seller and buyer, taking into consideration but not limited to" the value of the property's present use, its best reasonably available use, the physical capital forming part of it, and other evidence collected through administrative hearings.[41]

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[38] See 35 P.S. § 4007.1 (providing for denial of air pollution permits and plan approvals due to noncompliance).

[39] See 1 Pa.C.S. §§ 1921–1922 (asserting primacy of legislative intent and guiding statutory construction); 32 P.S. § 696.2(2) (declaring benefit of greenhouse gas reductions to Commonwealth and global environment); Wolfe v. Reading Blue Mountain, 320 A.3d 1164, 1177–78 (Pa. 2024) (asserting dominance of "primary and paramount beneficiary" test for takings).

[40] 32 P.S. § 696.5(b)(4) (requiring compensation to unknown, nonlocatable, and nonconsenting landowners based on fair market valuation).

[41] 26 Pa.C.S. § 703 (defining fair market value for eminent domain purposes); 26 Pa.C.S. §§ 1101–1106 (outlining collection of evidence).

Related evidentiary provisions focus on condemnation hearings, featuring "qualified valuation expert[s]," at which the formal rules of evidence do not apply.[42] Here, the taking of pore space is unlike most condemnation proceedings because condemned properties typically exist on the land's surface and have many possible uses, while pore space exists deep below the land's surface and has few possible uses.[43] The General Assembly's definition, however, frames the general inquiry.[44]

Here, again, the General Assembly has delegated to the EHB the task of determining "the basis for fair market valuation of the collective interest of the pore space owners."[45] Unless a nonconsenting pore space owner has some interest in the pore space's use to store natural gas or wastewater, it seems

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[42] See 26 Pa.C.S. § 1101 (stating condemnation hearing viewers not bound by formal rules of evidence); 26 Pa.C.S. § 1105 (detailing role of qualified valuation experts in condemnation hearings).

[43] See Joseph A. Schremmer, Conflicts and Confluences Between Surface and Mineral Estates with CCUS, 24 WYO. L. REV. 295, 342–43 (2024) (listing CCUS conflicts with other subsurface activities); see also 32 P.S. § 696.4(d)(2) (confirming common law dominance of mineral estate including coal, oil, and gas over rights to pore space).

[44] See In re Consol. Appeals of Chester-Upland Sch. Dist., 238 A.3d 1213, 1218 (Pa. 2020) (citations omitted) (stating essentially similar test).

[45] 32 P.S. § 696.5(b)(4) (delegating fair market valuation to EHB).

unlikely that the pore space owner will suffer much of an economic impact from a safe, well-regulated CCS project.[46] The U.S. Constitution, however, requires just compensation "even if the owner suffers only a 'minimal economic impact.'"[47] Thus, valuation of the collective interest should account for pore space takings of nominal value.[48]

Even when pore space serves no actual or potential uses besides CCS, evidence of environmental contamination or "environmental stigma" may necessitate compensation.[49] Litigants must base expert testimony about environmental stigma on a proper foundation on the record, rather than on mere

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[46] See Schremmer, supra note 43, at 342–43, 347 (listing CCUS conflicts and noting strong Class VI injection well corrective action permit requirement); see also 32 P.S. § 696.4(d)(2) (confirming common law dominance of mineral estate including coal, oil, and gas over rights to pore space).

[47] See Nw. Landowners Ass'n v. State, 978 N.W.2d 679, 692 (N.D. 2022) (quoting Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 434–35 (1982)) (requiring just compensation for takings of nominal value).

[48] See id. (declaring North Dakota statute facially unconstitutional under state and federal constitutions where it did not compensate pore space owners for takings).

[49] Harley-Davidson Motor Co. v. Springettsbury Twp., 124 A.3d 270, 286–87 (Pa. 2015) (holding environmental stigma may be "relevant to determining fair market value of real estate for tax purposes").

conjecture.[50] The Pennsylvania Supreme Court commented that such stigma is "inherently imprecise" and that "an appraisal expert's best efforts to quantify a reduction in property valuation as a result of a subjective and intangible stigma [are] permissible."[51]

Taken together, the Commonwealth's conception of fair market valuation reflects an open-ended, multi-factor analysis that the EHB's rules must fill in for purposes of CSO issuance.[52] This analysis must account for takings of nominal value.[53] Moreover, it should consider the potential for environmental

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[50] Id. (explaining evidentiary requirement for testimony about environmental stigma).

[51] Id. at 286 (allowing some latitude in expert testimony about environmental stigma).

[52] See 26 Pa.C.S. § 703 (defining fair market value for eminent domain purposes); see also 26 Pa.C.S. §§ 1101–1106 (outlining collection of evidence); In re Consol. Appeals of Chester-Upland Sch. Dist., 238 A.3d 1213, 1218 (Pa. 2020) (stating essentially similar test).

[53] See Nw. Landowners Ass'n v. State, 978 N.W.2d 679, 692 (N.D. 2022) (quoting Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 434–35 (1982)) (requiring just compensation for takings of nominal value).

contamination and environmental stigma resulting from CCS when evaluating the government's appropriation of pore space against owners' wills.[54]

[54] See Harley-Davidson Motor Co., 124 A.3d at 286–87 (holding environmental stigma may be "relevant to determining fair market value of real estate for tax purposes in appropriate circumstances"); see also UNGS Major Incidents, PIPELINE & HAZARDOUS MATERIALS SAFETY ADMIN. (Sept. 11, 2018), https://www.phmsa.dot.gov/pipeline/underground-natural-gas-storage/ungs-major-incidents (describing catastrophic well failure at Aliso Canyon underground natural gas storage facility and similar incidents).