BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:	)	
	)	
SIERRA CLUB, ENVIRONMENTAL LAW AND POLICY CENTER, PRAIRIE RIVERS NETWORK, and CITIZENS AGAINST RUINING THE ENVIRONMENT	)	
	)	PCB No-2013-015
Complainants,	)	(Enforcement – Water)
	)	
v.	)	
	)	
MIDWEST GENERATION, LLC,	)	
	)	
Respondent.	)	

NOTICE OF FILING

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board the attached **COMPLAINANTS' RESPONSE TO MIDWEST GENERATION, LLC'S APPEAL OF THE HEARING OFFICER'S RULING DENYING ITS MOTION *IN LIMINE* TO EXCLUDE JONATHAN SHEFFTZ'S OPINIONS** copies of which are attached hereto and herewith served upon you.

Respectfully submitted,

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Attorney for Sierra Club

Dated: August 10, 2022

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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SIERRA CLUB, ENVIRONMENTAL LAW AND POLICY CENTER, PRAIRIE RIVERS NETWORK, and CITIZENS AGAINST RUINING THE ENVIRONMENT	)	
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MIDWEST GENERATION, LLC,	)	
	)	
Respondent.	)	

COMPLAINANTS' RESPONSE TO MIDWEST GENERATION, LLC'S APPEAL OF THE HEARING OFFICER'S RULING DENYING ITS MOTION *IN LIMINE* TO EXCLUDE JONATHAN SHEFFTZ'S OPINIONS

Complainants Sierra Club, Environmental Law & Policy Center, Prairie Rivers Network, and Citizens Against Ruining the Environment ("Complainants") hereby respond to Midwest Generation, LLC's ("MWG") July 27, 2022 Appeal of the Hearing Officer's Ruling Denying Its Motion *In Limine* to Exclude Jonathan Shefftz's Opinions ("MWG Appeal").

MWG seeks an extremely broad exclusion of "Mr. Shefftz's economic benefit opinion, his deterrence opinion and his affordability opinion in his Expert Opinion, Supplemental Opinion, and Second Supplemental Opinion," as well as "any related testimony." MWG Motion *in* Limine for Shefftz Opinions, Feb. 4, 2022 ("MWG Motion"), at 8, 11; MWG Memorandum in Support of its Appeal, July 27, 2022 ("MWG Appeal Memo"), at 8. In other words, MWG seeks to exclude every portion of each of Mr. Shefftz's three reports, and to prohibit Mr. Shefftz from testifying at the remedy hearing.

In its motion, MWG asserted that Mr. Shefftz's reports and testimony should be excluded because information incorporated into Mr. Shefftz's reports "is predicated on speculative information provided by Petitioners' attorneys and information rejected by Petitioners' groundwater expert and therefore lacks foundation and is otherwise irrelevant." MWG Motion at 1; MWG Appeal Memo at 8.[1] The Hearing Officer rejected this argument, holding that

> [e]xperts oftentimes rely on assumptions to formulate their opinions but that does not require the Board to be bound by the opinions of the expert. *Timber Creek Homes, Inc. v. Village of Round Lake Park, Round Lake Village Board and Groot Industries, Inc*. PCB 14-99 slip at 18, (Aug. 21, 2014). Experts relying on counsel's assumptions or hypotheticals within the realm of direct or circumstantial evidence for their opinion is proper if based on direct or circumstantial evidence. The Board may exercise its own technical expertise in reviewing the assumptions when determining a proper remedy.

Order at 9.[2]

The Board should deny MWG's appeal and uphold the Hearing Officer's decision because MWG's motion and appeal are based on a fundamental misunderstanding of the nature of Mr. Shefftz's expertise and the function of his testimony. If the Board were to adopt MWG's position, it would set a precedent significantly limiting the availability of expert testimony on economic benefit, and diminish the Board's ability to satisfy its statutory obligations.

[1] MWG's Motion also asserted that Mr. Shefftz's reports and testimony should be excluded because Mr. Shefftz provided a legal opinion that usurped the Board's role of interpreting the law. MWG Motion at 9. MWG makes no mention of that argument in its appeal of the Hearing Officer's Order. Accordingly, MWG has waived that argument. *See Smith v. Intergovernmental Solid Waste Disposal Ass'n*, 239 Ill. App. 3d 123, 127, 605 N.E.2d 654, 656 (1992) (arguments not presented in appellant's initial brief are waived).

[2] In support of their argument that the Board should uphold the Hearing Officer's decision, Complainants incorporate by reference "Complainants' Response to Respondent MWG's Motion *In Limine* to Exclude Jonathan Shefftz Opinions" (March 4, 2022), and "Complainants' Opposition to Respondent's Motion for Leave to File, Instanter, Its Reply In Support of Its Motion *In Limine* to Exclude Jonathan Shefftz Opinions" (April 1, 2022).

A. Mr. Shefftz's Expertise—and the Sole Purpose of His Testimony—is in Providing an Economic Model Framework for Determining Economic Benefit.

The fundamental flaw in the argument put forward by MWG in its motion and appeal is that it entirely misunderstands the role of an economic expert in a remedy proceeding such as this, and overlooks the critical importance of Mr. Shefftz's testimony in enabling the Board to make the determinations necessary for resolution of this proceeding. The primary component of Mr. Shefftz's testimony is an economic model that utilizes formulas to account for economic factors such as discounting, compounding, inflation, tax deductions, and present value when calculating economic benefit. *See* Jonathan S. Shefftz, Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs (Jan. 25, 2021) ("Shefftz Initial Report") (Ex. 3 to MWG Appeal) at 9-11. MWG has not objected to the admissibility or utility of any element of the model itself or its underlying formulas. In order to produce an output, Mr. Shefftz must enter certain inputs into this model, including estimated remedy costs, dates of initial non-compliance, dates of compliance, length of remedy, and anticipated penalty payment dates. Shefftz Initial Report at 22-24. By definition, these inputs are outside of Mr. Shefftz's area of expertise. Mr. Shefftz has been explicit throughout his reports and deposition testimony that these inputs are outside of his expertise. *See, e.g.*, Shefftz Initial Report at 22 ("As I am an economist, not an engineer, I have no independent expert opinion on the cost estimates that were prepared in that report."); Jonathan Shefftz deposition transcript (Oct. 28, 2021) ("Shefftz depo") (Ex. 6 to MWG Appeal) at 61:12-15 ("I have no plans to become an engineer and develop an understanding that would allow me to develop an alternative opinion or verify the information in Dr. Kunkel's report.").

What MWG has apparently failed to grasp is that at this stage of the proceedings these inputs must be flexible, because they will ultimately be determined by the Board, and not by

either party (or their experts) independently. Mr. Shefftz presents in his reports, and will provide via his testimony at the remedy hearing, the economic model framework into which the Board will provide the final inputs. To the extent MWG has raised any legitimate issues with any of the inputs utilized by Mr. Shefftz in his reports (and Complainants do not concede that MWG has), those concerns would go only to the weight the Board may choose to place on those suggested inputs, not to Mr. Shefftz's economic expertise or the validity of the economic model he has devised.

MWG's failure to understand the nature or purpose of Mr. Shefftz's testimony is well illustrated by Respondent's expansive discussion of the unremarkable requirement that an expert's testimony have an adequate foundation. *See* MWG Appeal Memo at 10-12 (citing numerous authorities). As Mr. Shefftz is providing expert economic testimony, the relevant question is whether Mr. Shefftz and Complainants have established an adequate foundation for this economic testimony, including Mr. Shefftz's model. They have. At no point in the dozens of pages of its appeal does MWG challenge Mr. Shefftz's economic qualifications or the basis of the economic model he employs. Nor could they. Mr. Shefftz is a widely recognized authority in economic benefit calculations who regularly appears as an expert witness on various economic matters in U.S. District Court trials and hearings, Administrative Court hearings of the U.S. Environmental Protection Agency ("EPA"), and state courts trials. Shefftz Initial Report at 3. He helped develop and refine the "BEN" economic benefit model currently used by EPA (Shefftz Initial Report at 3), and employs a similar economic benefit model in his reports (*Id*. at 3, 10). Nor does MWG's economic expert, Ms. Koch, critique Mr. Shefftz's fundamental choice of methods for conducting his analysis. Expert Report of Gayle Schlea Koch (April 22, 2021) ("Koch Report"), attached as Ex.1, at 25. Ms. Koch's primary criticism of Mr. Shefftz's methods

related to his approach to calculating the "weighted average cost of capital" or "WACC," though Ms. Koch eventually conceded that Mr. Shefftz's approach is sound. *Compare* Koch Report at 25 *with* Gayle Koch deposition transcript (Oct. 22, 2021) ("Koch Depo"), attached as Ex. 2, at 51:17 to 53:8.

Instead of critiquing Mr. Shefftz's economic expertise or other elements for the foundation of his economic model—because it cannot—MWG instead focuses its arguments entirely on the inputs to Mr. Shefftz's model. Those arguments also fail, for the reasons explained below.

B. The Information Relied on By Mr. Shefftz as Inputs Into His Economic Model Includes Reasonable Assumptions of the Type Regularly Used By Expert Witnesses.

MWG's assertion that the assumptions incorporated into Mr. Shefftz's expert opinion are unsupported or otherwise improper are similarly unpersuasive. Courts have regularly concluded that experts may rely on reasonable assumptions arising from the factual evidence in a case. "As long as the hypothetical assumptions are within the realm of circumstantial or direct evidence, as supported by the facts or reasonable inferences, the question is permissible . . . . Moreover, the facts suggested in hypothetical questions need not be undisputed but only supported by the record." *Carter v. Johnson*, 247 Ill. App. 3d 291, 297, 617 N.E.2d 260, 265 (1993) (internal citations omitted). Applying that standard here, the operational assumptions that were necessary as inputs into Mr. Shefftz's model in order to produce his reports come directly from previous expert reports in this case, or arise naturally by reasonable inference from the record in this case or expert reports.

Hearing Officer Halloran appropriately cited to the Board's decision in *Timber Creek Homes, Inc. v. Village of Round Lake Park, Round Lake Village Board and Groot Industries, Inc*

(PCB 14-99 (Aug. 21, 2014)) for the proposition that "[e]xperts oftentimes rely on assumptions to formulate their opinions." HO Opinion at 9. That Board decision involved a dispute between a homeowner's association petitioner challenging a village board's approval of a developer's proposal to construct a waste transfer station. *Id.* at 1. Among the criteria the village board was required to consider was the impact on neighboring properties. *Id.* at 16. The developer retained multiple experts to provide opinions on this factor, including Lannert and Poletti. *Id.* at 16-18. Lannert reviewed aerial photos, visited the area, prepared 3D models, calculated land use ratios, and developed a site and landscape plan. *Id.* at 16-18. Poletti's expert review built on that of Lannert, as Poletti "used the map provided by Mr. Lannert and then looked at published literature concerning transfer stations" and "then performed a quantitative analysis looking at actual sales that have occurred around transfer stations to see if there is an impact on property values." *Id.* at 19. The homeowner's association petitioner challenged the reliability of the opinions of both Lannert and Poletti, asserting that "Mr. Lannert based his opinion on 'impermissible speculation regarding trends of development' in the area," and "that Dr. Poletti's opinion was flawed since he relied on Mr. Lannert's analysis." *Id.* at 38 (internal citations omitted). The Board ultimately rejected these critiques and held that "the Village Board had evidence to rely on in making its determination," and that "based on the evidence in the record, the Village Board's decision that [the project] met criterion III is not against the manifest weight of the evidence." *Id.* at 72. Accordingly, the Board's decision in *Timber Creek* stands for the dual unremarkable propositions that expert opinions may be based at least in part on speculation, and that it is not objectionable for an expert to incorporate someone else's analysis.

MWG's Motion and its Appeal take issue with two primary types of inputs that inform Mr. Shefftz's financial analysis: cost estimates associated with full removal of coal ash materials

provided by Complainants' original remedy expert James Kunkel; and compliance dates and remedy schedules provided by Complainants' counsel. MWG Appeal Memo at 12-13.

The first inputs can be defended easily: the remedy cost figures are drawn directly from the expert report that was submitted by Complainants' expert Dr. Kunkel, and which is heavily supported by extensive documentation and expert analysis. As MWG points out, Complainants' current remedy expert, Mark Quarles, has recommended an iterative approach based around a nature and extent study. *See* MWG Appeal Memo at 6. Although that approach will ultimately yield the most targeted remedy, by definition it cannot immediately produce a cost estimate. As a result, Mr. Shefftz reasonably relied on the estimate from Dr. Kunkel's report, which describes a full ash removal approach. Coal ash removal is among the potential remedies discussed in Mr. Quarles' report and that may result from his recommended nature and extent study. *See* Expert Opinion of Mark A. Quarles, P.G. (Jan. 25, 2021) ("Quarles Initial Report"), attached as Ex. 3, at 21 ("Closure-by-removal is particularly common at power plants where there is not adequate separation between the bottom of the wastes and the uppermost aquifer, or where the disposal area is located close to surface water bodies – conditions that exist at each of the four MWG power plants."). By using the cost estimates provided by Dr. Kunkel for such a removal approach, Mr. Shefftz's economic benefit report effectively illustrates how the Board can satisfy its obligation to consider economic benefit pursuant to Sections 42(h)(3) of the Act.

The second set of assumptions Mr. Shefftz relied on that MWG takes issue with is the hypothetical compliance schedule MWG would have followed had it immediately remediated the groundwater contamination for which it has now been found liable, as well as the compliance schedule MWG will follow should it now remediate the groundwater contamination for which it has been found liable. These two schedules provide the inputs necessary for Mr. Shefftz to

perform his analysis, because the economic benefit of noncompliance by its nature must compare the costs associated with a remedy with the costs the company would have incurred had it pursued that remedy in the first place, instead of waiting for a court to order them to do so. The economic benefit typically comes from the monetary windfall the violating entity has gained by delaying the process of cleaning up its violations. *See generally* Shefftz Initial Report. As an initial matter, Mr. Shefftz assumed that the coal ash removal should have begun when MWG first began groundwater sampling because that is the time when MWG first became aware of its ongoing groundwater contamination—the contamination that the Board has now confirmed violated the Illinois Environmental Protection Act. In turn, Mr. Shefftz's assumption regarding the start of a possible remedy is based on the present calendar date, assuming the Board requires such a remedy. Mr. Shefftz has already updated his expert opinion to reflect the continued passage of time while MWG does nothing, and he can do so again should it aid the Board.

Mr. Shefftz also relied on a 10-year removal schedule that was provided to him by Complainants' counsel for purposes of his economic benefit analysis. This assumption, while a simplifying one because MWG has not indicated how long it would take to remove all the coal ash from its sites, is well "within the realm of circumstantial or direct evidence, as supported by the facts or reasonable inferences." *Carter v. Johnson*, 247 Ill. App. 3d 291, 297, 617 N.E.2d 260, 265 (1993). Specifically, Dr. Kunkel's report laying out the costs of coal ash removal also discusses the scope of activities that would be required. With this context, as well as Complainants' Counsel's knowledge of how long similar cleanup projects have taken at other sites and in other states, a 10-year removal timeline represents a reasonable hypothetical timeline for Mr. Shefftz to employ as an input into his model.

Mr. Shefftz's model further assumes that there is ongoing groundwater contamination causing violations of the Illinois Environmental Protection Act at each of the sites. This assumption of course goes beyond Mr. Shefftz's field of expertise, but it is also supported by extensive and ongoing groundwater monitoring at each of the four sites in this case, which Complainants have received through supplemental discovery and will be entering into evidence at the forthcoming remedy hearing in this matter. Thus, there can be no reasonable dispute with Mr. Shefftz relying on this information.

The final set of assumptions to which MWG objects relates to Mr. Shefftz's reliance on Counsel's representations that MWG would have relined ponds and conducted groundwater monitoring even in Mr. Shefftz's hypothetical compliance scenario. MWG Appeal Memo at 7-8. Mr. Shefftz's hypothetical to calculate economic benefit assumed MWG removed coal ash from the ponds and fill areas at the four sites when it first became aware of the groundwater contamination from the coal ash. Shefftz Initial Report at 22; Jonathan S. Shefftz, Supplemental and Rebuttal Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs, at 14 (July 16, 2021) (Ex. 4 to MWG Mot.). The idea that MWG would have relined the ponds and monitored groundwater in any scenario is not controversial—MWG did in fact reline the ash ponds and conducted groundwater monitoring, and did so pursuant to compliance agreements with Illinois EPA, which means that these activities would have occurred in any event. *See* Hr'g Exs. 626, 636, 647, and 656. In fact, IEPA communicated in 2009 that it was requiring groundwater monitoring of MWG's ponds. *See* Hr'g Exs. 621.[3] The conclusion that MWG would have relined the ponds even if MWG removed all of the onsite ash stems from the fact that, historically, MWG did reline the ponds even though

[3] MWG may dispute IEPA's authority to do so but that doesn't translate to the groundwater monitoring being voluntary. Hr'g Ex. 621.

MWG regularly removed the ash from the ponds. See, e.g., Joint Agreed Stipulations (Oct. 2, 2017); Hr'g Tr. at 58:22-59:6, 61:4-12, 101:1-6, 111:15-21, 118:13-24, 192:13-22, 208:29-209:2 (Jan. 30, 2018). It is clear from the record that removing the ash from the active ponds did not affect MWG's decision to reline those ponds. If MWG were going to continue to manage the ash wet (which it did), then it needed to use those ash ponds (which it did). If MWG were going to continue to use the ash ponds (which it did), then it needed to reline them (which it did). Removing additional ash from outside those ponds is not related in any way to the Respondent's decision to reline the ponds. The fact that MWG would have relined the ponds and monitored groundwater regardless of any removal scenario is absolutely "supported by the record" that has been established in this case, as demonstrated above. *See Carter v. Johnson*, 247 Ill. at 297.

In short, each set of assumptions to which MWG objects arises either directly from the record or through reasonable inference and is therefore entirely appropriate and cannot justify excluding Mr. Shefftz's testimony. While MWG is free to develop the record at the hearing with the goal of challenging any of the inputs utilized in Mr. Shefftz's model, the model itself and Mr. Shefftz's expert testimony on the methodology for calculating economic benefit are well within the scope of expert testimony Illinois courts have regularly allowed to be admitted.

C. MWG's Interpretation of the Rules of Evidence Would Preclude the Board From Relying on Economic Witnesses, Particularly for the Purpose of Determining Economic Benefit.

The extreme nature of the position taken by MWG regarding the allowable use of economic experts is highlighted by MWG's argument that an economic expert must possess "independent knowledge [and] expertise" as to every fact or assumption incorporated into that expert's report. MWG Appeal Memo at 13. Such a rule, if adopted by the Board, would require every economic expert providing testimony to assist the Board to possess not only economic

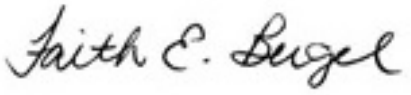
expertise, but expertise in additional areas such as engineering, chemistry, and environmental remediation. Such an absurd policy would have the effect of depriving the Board of testimony from qualified economists.

In the face of significant uncertainty, Mr. Shefftz has offered to the Board exactly what it will need to meet its obligation to consider economic benefit pursuant to Sections 42(h)(3) of the Act; and he has calculated Complainants' best estimate of that benefit based either directly on established facts, or on reasonable inferences from those facts. Throwing out this analysis would deprive the Board of expert "testimony [that] will assist [the Board] in understanding the evidence" before it, and it would be inconsistent with Illinois courts' consistent practice of allowing expert testimony that is reliably supported by the record. *See Taylor v. Cty. of Cook*, 2011 IL App (1st) 093085, ¶ 32, 957 N.E.2d 413, 426.

For all of these reasons, the Hearing Officer's decision should be affirmed, and MWG's appeal seeking to strike Mr. Shefftz's economic benefit testimony should be denied.

Dated: August 10, 2022

Respectfully submitted,



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CERTIFICATE OF SERVICE

The undersigned, Faith E. Bugel, an attorney, certifies that I have served electronically upon the Clerk and by email upon the individuals named on the attached Service List a true and correct copy of **COMPLAINANTS' RESPONSE TO MIDWEST GENERATION, LLC'S APPEAL OF THE HEARING OFFICER'S RULING DENYING ITS MOTION *IN LIMINE* TO EXCLUDE JONATHAN SHEFFTZ'S OPINIONS** before 5 p.m. Central Time on August 10, 2022, to the email addresses of the parties on the attached Service List. The entire filing package, including exhibits, is 29 pages.

Respectfully submitted,

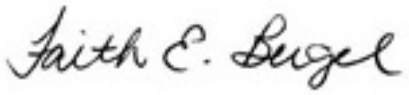

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EXHIBIT 1

EXPERT REPORT
IN THE MATTER OF
SIERRA CLUB, ENVIRONMENTAL LAW AND POLICY CENTER, ET AL. V. MIDWEST GENERATION, LLC
PCB 2013-15

Contains Non-Disclosable Information

Prepared by

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April 22, 2021

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Shefftz's analysis of economic benefit. Therefore, these costs totaling $1,417,321.63, shown in Table 4 and detailed in Appendix C, should also have been credited to MWG in Mr. Shefftz's on-time compliance scenario.

Table 4. MWG Incurred Groundwater Monitoring Costs[59]

Year	Joliet 29	Powerton	Will County	Waukegan
2011[e]	$11,480.00	$28,409.00	$11,480.00	$ 9,525.00
2012[e]	$13,680.00	$30,609.00	$13,680.00	$11,725.00
2013[e]	$24,778.00	$48,322.00	$25,766.00	$20,845.00
2014	$16,480.00	$32,599.50	$16,525.83	$14,516.65
2015	$29,650.29	$63,094.11	$47,381.55	$39,677.13
2016	$31,607.00	$75,025.00	$35,205.00	$46,645.00
2017	$35,878.32	$60,179.19	$38,569.66	$46,695.48
2018	$28,740.37	$54,861.75	$29,380.62	$39,871.84
2019	$28,211.05	$57,743.09	$30,320.25	$39,078.86
2020	$31,838.46	$62,637.57	$33,902.22	$43,382.08
->3/2021	$11,000.00	$19974.88	$11,500.00	$14,849.88
Total	**$263,343.49**	**$533,455.09**	**$293,711.13**	**$326,811.92**

e= 2011-2012 and half of 2013 estimated based on subsequent year sampling and reporting costs.

Invalid Input Data to Economic Benefit Analysis and Economic Reasonableness Evaluation

Mr. Shefftz also wrongly employs data for NRG Energy (indirect parent) rather MWG (named party) in his analysis. Pursuant to the April 13, 2021 order of the Hearing Officer in this matter, the portions of the Shefftz opinion that concern NRG have been excluded.[60] Particular points where Mr. Shefftz incorrectly uses NRG data in his economic benefit and economic reasonableness argument include (but are not limited to):

[59] KPRG and Associates invoices for 2013-2021.

[60] Hearing Officer Order regarding Motion *in Limine* to Exclude Sections of Complainants' Expert Report, Sierra Club et al. v. Midwest Generation, LLC, PCB-13, April 13, 2021. I reserve the right to supplement my opinion in the event this ruling is changed.

- In his financial gain/economic benefit of noncompliance opinion, Mr. Shefftz employs NRG's weighted-average cost of capital ("WACC") and equity beta as the basis for interest rate calculations on his worst-case delayed/avoided cost scenario. [61] NRG has both equity and debt structures that are different than those of MWG. NRG also participates in many different industries that MWG does not participate in, such as wind energy generation, which invalidates the use of NRG equity beta data for this matter. As a result, Mr. Shefftz's financial gain/economic benefit of noncompliance analysis is based on NRG data, rather than MWG data, and is incorrect.

- In his economic impact of penalty payment and compliance costs opinion, Mr. Shefftz bases his conclusion on analysis of NRG financials, rather than MWG financials. [62] Since NRG is not the party at issue in this matter, Mr. Shefftz's analysis in invalid.

Economic Benefit

While Mr. Shefftz employs noncompliance dates from 2010 to present in his economic benefit analysis, the noncompliance dates noted by the Board start with MWG's voluntary sampling in December 2010 and have end-dates determined by the Board as follows:

- Joliet 29 Station: December 2010 to August 8, 2013
- Powerton Station: December 2010 to October 3, 2013
- Will County Station: December 2010 to July 2, 2013
- Waukegan Station: December 2010 to 2017[63]

[61] J.S. Shefftz, Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs, January 25, 2021, pp. 15-21.

[62] J.S. Shefftz, Expert Opinion on Economic Benefit of Noncompliance and Economic Impact of Penalty Payment and Compliance Costs, January 25, 2021, pp. 30-38.

[63] Illinois Pollution Control Board, Order of the Board regarding Sierra Club, et al. v. Midwest Generation, LLC, PCB 13-15, February 6, 2020, p. 13; Illinois Pollution Control Board, Interim Opinion and Order of the Board regarding Sierra Club, et al. v. Midwest Generation, LLC, PCB 13-15, June 20, 2019, p.2. Dates cited are those identified by the Board in these Orders. For the purpose of my analysis, I use conservative assumptions for unspecified dates,

Mr. Shefftz creates a program to simulate USEPA's BEN model calculation of economic benefit. While 33c and 42(h) of the Act specify factors to consider in looking at economic benefit rather than a specific model, to correct Mr. Shefftz's calculations I employed the current version of the USEPA BEN model[64] and the remedy cost estimates prepared by Weaver (discussed above). The resulting BEN model economic benefits are shown in Table 5, with supporting output from the model provided in Appendix D.

Table 5. USEPA BEN Model Economic Benefit Calculations

Station	Economic Benefit (as of April 22, 2021)
Joliet 29	$0
Powerton	$12,415
Will County	$22,124
Waukegan	$0
TOTAL	**$34,539**

These results estimate an economic benefit of $34,539 as of the date of this report, and use the model's default parameters for cost of capital, inflation, and Illinois tax rates. It is possible that some of the one-time costs, such as the additional well installation, were not actually delayed, in that years of monitored natural attenuation modeling would be necessary before these remedies would be selected. This could drop the economic benefit value further. Therefore, the economic benefit calculated in Table 5 is conservatively high, and may be viewed as the maximum economic benefit.

namely December 1, 2010 for the start of noncompliance, and December 31, 2017 for the end of noncompliance. This will maximize the amount of economic benefit calculated.

[64] USEPA BEN model, version 2021.0.0., https://www.epa.gov/enforcement/penalty-and-financial-models

EXHIBIT 2

Transcript of Gayle Schlea Koch

Date: October 22, 2021
Case: Sierra Club, et al. -v- MidWest Generation, LLC

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what I'm -- I'm confused by what I perceive to be a difference between what you have said today in this deposition and what your report says, so I would love it if you could clarify that.

A The --

MS. GALE: Same objection.

THE WITNESS: Sorry?

MS. GALE: I said, same objection.

A I would say some or all of these costs should be credited.

Q (BY MR. WANNIER) Okay. Thank you.

Let's turn to Page -- the bottom of Page 24, this -- this section, "Invalid Input Data to Economic Benefit Analysis and Economic Reasonableness Evaluation." Do you see that?

A Yes.

Q Okay. And, again, I direct you to the bottom of Page 24, but my question is really about the top of Page 25. You state there, "In his financial gain/economic benefit of noncompliance opinion, Mr. Shefftz employs NRG's weighted average cost of capital or WACC and equity beta as the basis for interest rate calculations."

Do you see that?

A Yes.

Q And it's your opinion that using the -- using NRG's weighted average cost of capital -- well, let me -- rather than stating it for you, I'll just ask, do you believe it is appropriate to use NRG's WACC when in the economic benefit calculation?

A I have concerns about doing that which I detail in this first bullet, which is that NRG, as an indirect parent, has a lot of other businesses, the risks of which would be in their WACC, but should not be in Midwest Gen's. So I -- I certainly have concerns about doing that.

I have read Mr. Shefftz's -- I guess it's rebuttal report or subsequent report -- and he talks about the NRG WACC potentially being better than the average industrial WACC used in the BEN model which I use. And I have some sympathy for that.

He also talks about how it would be more appropriate to look for similar industries that are pure plays in coal-fired electric generation and look at their WACCs, which I also would agree with. And it's something I looked at and could not find at the time, and certainly, I encourage him to do that if he can find it.

I am guessing since he didn't present that information, that he didn't find it either. But I certainly would look forward to him providing that

information.

So, no, using NRG data is -- one, it's a parent that's not involved in this, and I know there have been lots of briefs and orders and things related to that whole issue. But I have some sympathy to his argument that the NRG WACC, since it includes Midwest Gen operations, might be more appropriate than the overall industrial average. And I am somewhat persuaded by that.

If I had used the NRG WACC, my numbers would have been lower. So I also believe when I give testimony, I tend to want to maintain my credibility by not trying to go out on a limb and use the number that gives my client the absolute best number. I want to use something that's credible and that the board or whoever I'm recommending this to can understand and feel that it's credible. So I used what was in the BEN as the default, but I'm okay using the energy WACC.

That's a long way of answering your question.

Q Okay. So at this point after having reviewed Mr. Shefftz's rebuttal report, would you agree that the NRG WACC is a credible estimate to use?

MS. GALE: Objection; misstates her testimony.

EXHIBIT 3

Expert Opinion of Mark A. Quarles, P.G.

January 2021

Sierra Club, Environmental Law and Policy Center, Prairie Rivers Network, and Citizens Against Ruining the Environment v. Midwest Generation, LLC

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4.0 REMEDIAL ACTION

4.1 Recent Cases of Coal Ash Removal Actions

The CCR Rule requires coal ash disposal sites meeting certain criteria to close by two options: closure-by-removal where wastes are excavated and hauled to a lined disposal area or beneficially used or closure-in-place where wastes remain separated from groundwater and are covered by an impermeable membrane. (40 CFR Part 257.102 (c) and (d)). Saturated coal ash cannot be closed in-place according to the CCR Rule because leaching to groundwater will continue from unlined disposal areas. (40 CFR Part 257.102 (d)(i.)). Also, disposal units that contain coal ash that is located too close to the uppermost aquifer are required to close. (40 CFR Part 257.60(c)(4)).

Utilities across the United States began closure activities in response to the CCR Rule, based upon the results of the required assessments. Commonly, utilities have chosen to close disposal areas by closure-by-removal where the coal ash is excavated and then placed into a lined landfill. A list of 127 coal ash disposal units located in 27 states that was previously provided to MWG, is included in **Table 1**. Of those units, seven MWG ash ponds at Joliet (Ash Pond #2), Powerton (Ash Surge Basin and Ash Bypass Basin), Waukegan (East and West Ponds), and Will County (Ash Ponds 2S and 3S) and seven additional units in Texas owned by MWG's parent company (NRG) are all planned for closure-by-removal.

Nationally and in particular in Illinois, utilities have therefore determined that closure-by-removal is technically feasible and economically reasonable – even for very large disposal areas that are sometimes hundreds of acres in size and contain millions of cubic yards of coal ash. Closure-by-removal is particularly common at power plants where there is not adequate separation between the bottom of the wastes and the uppermost aquifer, or where the disposal area is located close to surface water bodies – conditions that exist at each of the four MWG power plants.

4.2 Investigative Results Used to Evaluate Remedies

Any current groundwater remedy needs to consider that both the historical and current disposal areas are possible source areas, consistent with the Board's conclusion that active *and* historical coal ash disposal areas are likely sources of contamination. To know which historical and active source areas are contributors to contamination, MWG needs to know where all those areas are (i.e., source identification) and under what conditions the coal ash exists in those areas (i.e., nature and extent of contamination).

Source identification and defining the nature and extent of contamination are fundamental first steps for selecting a remedy under IEPA and Federal programs such as the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. Sections 6901 – 6992k), the Comprehensive Environmental Response, Compensation and Liability Act (CERLCA, 42 U.S.C. Sections 9601 - 9675), and other state-equivalent programs.