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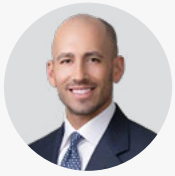
Midstream Transportation Agreements for Carbon Capture

Participants in the midstream stage of US carbon capture projects take carbon from an upstream emission source to a downstream delivery point. Counsel negotiating and drafting transportation service agreements (TSAs) for this stage must consider various issues, including how industry nuances and overall project risks impact significant provisions.



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The carbon capture and sequestration (CCS) industry in the US has generated increased interest over the past few years for practical and economic reasons. The CCS industry:

- Is a critical tool for both the private sector and the public sector to meet their net zero emissions targets. Additionally, carbon capture projects may help the oil and gas industry diversify and be part of the transition from an economy based solely on fossil fuels to an economy based on a diverse mix of energy sources.
- Has the potential to generate significant revenue for participants at all stages of a carbon capture project, including revenue from tax credits, service fees, and injection royalties.

The midstream sector may share in these benefits because of the significant overlap of the midstream requirements for the oil and gas industry and the CCS industry. This overlap allows the oil and gas midstream sector to quickly expand to service carbon capture projects.

However, before realizing these benefits, the definitive agreements for a carbon capture project must be negotiated, which is not a straightforward process. Counsel with oil and gas expertise cannot simply use the standard approach to oil and gas projects and apply it to carbon capture projects. Although the oil and gas skill set is the best skill set for carbon capture transactions, counsel must also have a thorough grasp of all aspects of a carbon capture project to understand the unique concerns of each project participant.

All project participants, including the midstream company, must assess the risks of the CCS project as a whole and recognize that, by participating in the CCS project, they are exposed to risks that they would otherwise not be exposed to in the oil and gas context. The risks of the overall project may be difficult to cleanly allocate among the upstream, midstream, and downstream stages of the project.

The risks of one stage of a CCS project affect the other stages of the project. A major problem at one of the project stages, such as the termination of a key project agreement, has ripple effects for the other project stages. If the parties are unwilling to share in the overall risks of the CCS project, the project will never be viable. However, if the parties are willing to share in the risks and collaborate with one another, they may reap large rewards and spearhead a new industry.

This article:

- Discusses negotiation considerations for the midstream processing and transportation phases of a point source carbon capture project in which carbon is captured from human-caused emission sources.

- Identifies the main stages and project models used for most US carbon capture projects.
- Examines key issues and considerations for the parties when negotiating and drafting TSAs for the midstream stage of a carbon capture project.

(For more on CCS generally, see Carbon Capture and Sequestration Projects: Overview, Repurposing Existing Pipeline Infrastructure for Carbon Capture and Sequestration, and US Forest Service Proposes Rule Changes to Allow Carbon Capture and Storage (CCS) Projects on Forest Service Lands on Practical Law.)

STAGES OF A CARBON CAPTURE PROJECT

A typical point source carbon capture project involves three main stages:

- **The upstream or capture stage.** During this stage, carbon oxides are captured and separated from human-caused emission sources (such as the emissions from a steel plant) and then treated to meet applicable quality specifications for the particular project. In many projects, compression of the captured carbon is performed on-site at the industrial emitter's plant and is considered part of the upstream stage.
- **The midstream or transportation stage.** During this stage, the captured carbon is transported from the emitter's plant to a delivery point downstream. As with traditional oil and gas projects, a smaller gathering pipeline first transports the captured carbon from the emitter's plant to a larger transportation pipeline, which then transports the captured carbon to the downstream delivery point. The delivery point may be relatively close to the emitter's plant or located hundreds of miles away.
- **The downstream or sequestration stage.** During this stage, the captured carbon is:
  - injected into underground pore space for long-term sequestration (most of the carbon capture projects in the US);
  - used for enhanced oil recovery operations (a minority of the carbon capture projects in the US); or
  - used as industrial feed stock (a very small minority of the carbon capture projects in the US).

PRIMARY CARBON CAPTURE PROJECT MODELS

There are two primary models for point source carbon capture projects in the US:

- The partnership model
- The sole operator model.

(For guidance on real property and regulatory issues for developing CCS projects in the US, see Regulatory and Real Property Considerations for Carbon Capture and Sequestration (CCS) Projects on Practical Law.)

PARTNERSHIP MODEL

Under the partnership model, an emitter collaborates with a carbon capture company (often an oil and gas exploration and production company). The carbon capture company acts as the overall project manager, while the emitter focuses on specific aspects of the carbon capture process. These parties have the following responsibilities:

- **Emitter.** By teaming with a project manager to run the project, the emitter typically limits itself to two primary responsibilities:
  - constructing and operating the carbon capture equipment at its plant; and
  - operating its plant to generate a raw emissions stream from which carbon can be captured.
- **Project manager.** The project manager is responsible for the phases of the project that follow the upstream stage, including:
  - transporting the captured carbon from the emitter's plant to the sequestration site;
  - injecting the captured carbon into underground pore space for sequestration; and
  - monitoring, maintaining, and repairing the sequestration site over time.

The emitter pays the project manager a service fee that is typically based on the quantity of captured carbon that the project manager accepts from the emitter. The emitter, as the owner of the carbon capture equipment, typically claims tax credits and carbon offset credits generated by the project.

The project manager is nominally responsible for the transportation of the captured carbon from the emitter's plant to the sequestration site. However, the project manager often subcontracts the carbon transportation services to a midstream company under a TSA.

At the sequestration site, the project manager takes delivery of the captured carbon and injects it into the underground storage pore space. The project manager must first secure rights to the pore space, either through a pore space lease or an outright purchase from the pore space owner. A pore space lease typically requires the project manager to pay the pore space owner injection fees based on the quantity of captured carbon that the project manager injects into the pore space. The project manager is also responsible for the maintenance and repair of the sequestration site, including long-term monitoring for leaks.

SOLE OPERATOR MODEL

Under the sole operator model, one carbon capture company (often an oil and gas exploration and production company) is responsible for all aspects of the carbon capture project, that is:

- Constructing and operating the carbon capture equipment at an emitter's plant.
- Transporting the captured carbon from the emitter's plant to the sequestration site.
- Injecting the captured carbon into underground pore space for sequestration.
- Monitoring, maintaining, and repairing the sequestration site over time.

The sole operator enters into an agreement with an emitter for access to the emitter's:

- Plant, to construct and operate the carbon capture equipment.
- Emissions stream, to capture carbon in exchange for a fee.

The sole operator is also responsible for securing pore space and injecting the captured carbon. The sole operator typically claims tax credits generated by the project. However, as in the partnership model, the sole operator typically lacks the operational expertise and infrastructure required to construct and operate the midstream system and often must engage a midstream company for these services under a TSA.

THE TSA

The TSA is the primary transaction document for the midstream stage of a carbon capture project in the US.

Under a partnership model, the TSA is between the project manager and the midstream company on a subcontract basis. If the project manager is operating multiple projects for different emitters in the same area, the project manager may enter into an omnibus TSA that reserves enough capacity in the midstream company's pipeline to service all projects in that area.

Under the TSA, the midstream company is responsible for:

- Designing and constructing:
  - the gathering system;
  - the interconnection between the emitter's plant and the gathering system; and
  - the main transportation pipeline.
- Providing gathering and transportation services for the project manager.

When negotiating a TSA under the partnership model, counsel must consider the incentives, risk profiles, and relationships among the project participants, including that:

- Between the emitter and the project manager, the project manager is responsible for providing transportation services.
- Between the project manager and the midstream company, the midstream company is responsible for providing transportation services on a subcontract basis.
- The contractual relationship between the emitter and the midstream company is limited to an interconnection agreement.

Under a sole operator model, the structure is more straightforward because the sole operator contracts directly with the midstream company for the transportation services.

TSA KEY ISSUES AND CONSIDERATIONS

When negotiating a TSA for carbon capture projects, several critical issues and considerations must be addressed to ensure a comprehensive and effective agreement.

AGREEMENT TERM

The term structure of a carbon capture TSA is typically similar to that of an oil and gas TSA and generally consists of:

- A primary term, usually 12 to 15 years.
- A secondary term, ranging from one to three years, which can be renewed automatically on a rolling basis or by mutual agreement of the parties.

Key considerations in determining the primary term of a carbon capture TSA are:

- The life cycle of the carbon capture project.
- Whether the midstream system is used for a single CCS project or multiple CCS projects.
- The economics of the midstream system itself.

Project Life Cycle

The life cycle of most CCS projects in the US is driven by the availability of tax credits generated from these projects. Currently, CCS projects in the US can claim tax credits for up to 12 years after they are first placed in service. After the 12-year period, a CCS project no longer generates tax credits, and the primary revenue stream for the project is cut off.

As a result, most CCS projects are designed for 12 years, but some project managers optimistically plan for tax credits to be extended beyond 12 years. Consequently, most carbon capture TSAs have a primary term set in the 12-to-15-year range, depending on whether the midstream system needs to be built before the CCS project is placed in service.

Single Project or Multiple Projects

Under the partnership model, the project manager may execute one TSA to cover multiple projects at once. Therefore, the typical 12-year life cycle of a single project may not be a major consideration for the primary term of the TSA.

For example, a project manager may agree to manage carbon capture projects with multiple emitters at various stages of development and enter into one large-capacity TSA for all projects. In this case, the CCS projects likely start operations within years of one another, and the primary term of the TSA must be longer than 12 to 15 years to ensure that transportation services are available during the life cycles of all related CCS projects.

Economics of the Midstream System

The primary term must be long enough to ensure that the midstream company:

- Generates enough fees from the transportation services over the primary term to recoup its capital and operating expenditures.
- Meets its return-on-investment targets.

The amount of capital and operating expenditures may vary widely depending on the particulars of a given project. For example:

- The midstream company may be able to use an existing oil and gas pipeline for the CCS project (after retrofitting it for CO2) or may need to build an entirely new system, resulting in a significant impact on the capital expenditures of the project.
- If the system crosses difficult terrain or has operational challenges, operating expenditures and maintenance costs may be high.

Economic issues such as these affect the midstream company's desired primary term for the TSA, with high-cost projects requiring a longer primary term.

CONDITIONS PRECEDENT

Most TSAs contain conditions that must be satisfied or waived by one or both parties before the parties' respective obligations become binding. TSAs in both the oil and gas industry and the CCS industry share several common conditions precedent, which typically include:

- The parties' final investment decisions in the project.
- Obtaining all pipeline permits and surface rights (such as rights-of-way and easements necessary for the midstream system).
- Construction of the gathering and transportation system.

There are also conditions precedent that are unique to carbon capture projects, specifically:

- The construction and testing of the upstream carbon capture system.
- The construction of the downstream sequestration system.
- Obtaining permits and approvals for the carbon capture project as a whole, such as approval by the Environmental Protection Agency (EPA) or relevant state authority of a Class VI injection well application (which can take years to obtain).

If these conditions precedent are not satisfied or waived by a certain deadline specified in the TSA, one or both parties have the right to terminate the TSA. Additionally, a party that fails to satisfy a condition precedent may be subject to negative consequences, which likely depends on whether the condition is under that party's control. For example, if a condition precedent is:

- The construction of the midstream system, which is generally under the midstream company's control, the midstream company's failure to satisfy this condition is likely to have negative consequences.
- Obtaining a Class VI injection permit, which is generally out of either party's control, the failure to obtain the Class VI permit is unlikely to have negative consequences.

The CCS project model may influence the negative consequences of a party's failure to satisfy certain conditions precedent. For example, a common condition precedent in a TSA is that the carbon capture equipment be constructed by a specified deadline.

In the partnership model, the emitter (who is not a party to the TSA) is responsible for constructing the carbon capture equipment. Therefore, neither TSA party controls its construction. A project manager may resist incurring penalties for the emitter's failure to construct the equipment by a given deadline. Alternatively, if the project manager is liable under the TSA for that failure, the project manager will likely seek an indemnity from the emitter for any amounts the project manager must pay to the midstream company.

In the sole operator model, the sole operator is responsible for constructing the carbon capture equipment. The TSA may impose negative consequences on the sole operator if it fails to complete construction by the deadline.

Counsel must keep in mind the broader context of the carbon capture project when drafting conditions precedent. The midstream stage is just one part of a broader CCS project that is under active development. The conditions precedent in the TSA must also consider developments and delays at the upstream and downstream stages of the project. For example, if the parties' obligations under the TSA are not conditioned on the construction of the carbon capture equipment, a project manager may be locked into a minimum quantity commitment under the TSA with no ability to deliver captured carbon, and the midstream company may be required to construct a pipeline system for captured carbon that cannot be delivered.

Consequently, when drafting the conditions precedent, counsel must consider:

- The requirements of the upstream and downstream stages of the project.
- The current status of meeting those requirements.
- The project's deadline constraints.
- How to synchronize these elements.

(For more on Class VI injection wells, see Texas Railroad Commission Votes to Publish Amended Carbon Storage Rules and Submit Pre-Application for Authority Over Class VI Injection Wells on Practical Law.)

FIRM AND INTERRUPTIBLE SERVICE LEVELS

Carbon capture TSAs often use the firm and interruptible service concepts found in oil and gas TSAs. The project manager or sole operator in a carbon capture project reserves a certain amount of firm daily capacity in the midstream company's pipeline (typically expressed in metric tons of CO2 per day), and the midstream company guarantees pipeline capacity up to the firm daily capacity amount. The structure of service in carbon capture TSAs typically includes that:

- The project manager's or sole operator's deliveries into the pipeline up to the firm daily capacity usually can only be limited or curtailed because of maintenance, repair, or an emergency on the pipeline.
- If firm service deliveries need curtailing, it can only happen after all non-reserved or interruptible capacity is fully stopped.
- The firm service deliveries are curtailed on a proportionate basis with all other parties that receive firm service on the pipeline.

Carbon capture TSAs also usually give the project manager or sole operator the ability to deliver additional quantities of captured carbon above the firm daily capacity on an interruptible basis under the following conditions:

- If there is excess capacity in the pipeline at the time of delivery and the midstream company agrees to accept the excess captured carbon at its discretion, then the midstream company allows these interruptible service deliveries.
- The midstream company has the right to stop accepting interruptible service deliveries at its discretion.
- If the midstream company needs to limit deliveries through the pipeline for maintenance, repair, or an emergency, all interruptible service deliveries are curtailed before the curtailment of any firm capacity deliveries.

Given the unpredictable nature of interruptible capacity, CCS projects cannot rely on interruptible capacity alone for the midstream stage of the project. Primary considerations for determining firm and interruptible capacity rights in a carbon capture TSA include:

- Understanding:
  - the emitter's operational plans; and
  - the quantity of carbon that can be captured from the emitter's raw emissions stream.
- Incorporating back-to-back curtailment rights with the project manager's emitters.

EMITTER'S OPERATIONS AND EMISSIONS

The project manager or sole operator must reserve enough firm capacity to cover the projected quantity of captured carbon that will be produced by the emitter (or emitters, if a project manager is servicing multiple projects in one area). This consideration is particularly important for CCS projects in the partnership model, because the project manager likely both:

- Provides firm service guarantees to the emitter (for example, guarantees the ability to accept, transport, and inject a minimum quantity of captured carbon from the emitter).
- Is subject to a minimum quantity commitment with the emitter (for example, agrees to accept or inject a minimum quantity of captured carbon from the emitter or, if the project manager fails to meet the minimum quantity, to pay a shortfall fee to the emitter).

If the project manager does not reserve enough capacity in the midstream company's pipeline to meet its firm service guarantees or minimum quantity commitment to the emitter, the project manager will be subject to shortfall payments to the emitter.

The project manager may also consider including negative consequences in the TSA for the midstream company's failure to meet its firm service guarantees on the pipeline. To limit the project manager's liability to the upstream emitter in case the midstream company fails to meet its firm service guarantees, the amounts paid by the midstream company to the project manager should be sufficient to cover any penalties owed by the project manager to the upstream emitter.

CURTAILMENT RIGHTS

Project managers should consider including back-to-back curtailment rights with their upstream emitters. These rights allow the project manager to curtail deliveries from the upstream emitter if the midstream company is curtailing deliveries on the pipeline. This can be accomplished by stating in an upstream offtake agreement between the emitter and project manager that any curtailment under the TSA gives the project manager the right to limit the upstream emitter's deliveries without negative consequences (for more on offtake agreements, see Offtake Agreements: Issues and Considerations on Practical Law).

MINIMUM QUANTITY COMMITMENTS

Almost all carbon capture TSAs include a minimum quantity commitment that is nearly identical to a minimum volume commitment in an oil and gas TSA. Under a minimum quantity commitment:

- The project manager or sole operator agrees to transport a minimum number of metric tons of captured carbon in the midstream company's pipeline over a given time frame (a monthly, quarterly, or annual basis).
- If the project manager or sole operator fails to meet the minimum delivery quantity, it must pay a shortfall fee equal to:
  - the minimum amount that the project manager or sole operator was required to transport in the pipeline;
  - minus the amount it actually transported in the pipeline; and
  - multiplied by a negotiated dollar-per-ton shortfall fee.

For midstream companies, including a minimum quantity commitment in the TSA allows them to lock in revenue over the course of the agreement. Regardless of whether the project manager or sole operator actually transports anything in the pipeline, the midstream company receives revenue from the shortfall fee. This revenue gives the midstream company the comfort it needs to commit to the hefty capital expenditures required up front to build out the gathering and transportation system for a project.

The two biggest considerations for any minimum volume or quantity commitment, whether in the CCS industry or the oil and gas industry, are generally the following inputs in the calculation of the shortfall fee:

- The required minimum tons of captured carbon.
- The dollar-per-ton shortfall fee.

The midstream company wants both inputs to be as large as possible, and the project manager or sole operator wants both inputs to be as small as possible.

A carbon capture project has unique factors that the parties must consider as they negotiate the minimum quantity commitment in the TSA, including:

- Whether there will be a dedication of captured carbon.
- The ability of the project manager or sole operator to meet minimum quantity commitments.
- Under a partnership model where there are multiple projects, the timing of each project.

Dedications

Some project managers and sole operators prefer to negotiate for a dedication of captured carbon in a given area instead of committing to a minimum quantity. This dedication requires transporting all carbon captured, regardless of volume, within a given geographic area. Project managers or sole operators prefer dedications because there is no shortfall fee or minimum delivery requirement, even if the captured carbon amount is low.

However, dedications, as opposed to a minimum quantity commitment, are often a non-starter for midstream companies because there are not enough established carbon capture projects within the US to make a dedication a reliable and valuable alternative to a minimum quantity commitment. For a midstream company to rely on a dedication instead of a minimum quantity commitment, there must be an established track record of predictable production in the dedicated area. Given the nascent stage of the CCS industry, there is generally no track record, and the CCS industry is too early in its development to support most dedication arrangements.

Amount of Raw Emissions and Captured Carbon

The ability of the project manager or sole operator to meet a minimum quantity commitment is entirely dependent on the upstream emitter's production of raw emissions and captured carbon. The project manager or sole operator is therefore at the mercy of the emitter. If the emitter slows or stops its plant operations, reducing its emissions stream and resulting production of captured carbon, the project manager or sole operator may not have enough captured carbon to meet the minimum quantity commitment under the TSA.

As a result, most project managers or sole operators include a back-to-back minimum quantity commitment in their agreement with an upstream emitter. This commitment is designed to cover any shortfall fee owed to the midstream company caused by the emitter. For example, if the TSA contains a minimum quantity commitment of 100,000 metric tons per year and a shortfall fee of $10 per metric ton, the project manager or sole operator will seek to include a 100,000 metric-ton-per-year minimum quantity commitment and a $10 per metric ton shortfall fee in its offtake agreement with the upstream emitter.

Project Timelines

For CCS projects under the partnership model where a project manager is entering into one TSA for multiple projects, the various projects will likely develop along different timelines. Some projects may start operations quickly, while others may take years to fully develop. If the project manager is immediately subject to one large minimum quantity commitment that is based on the total estimated production of all projects, the project manager:

- May not be able to meet the large minimum quantity commitment until most or all projects come online.
- Will owe a shortfall fee.

Therefore, the project manager should consider negotiating a minimum quantity commitment that gradually increases over a set timeline or as the different projects start operations.

SERVICE FEES AND FEE ESCALATION

Similar to most oil and gas TSAs, the fee structure in carbon capture TSAs is based on overall throughput in the midstream system. The TSA includes a negotiated base unit price, normally a dollar amount per metric ton of captured carbon. The base unit price is then multiplied by the number of units that the midstream company transports from the emitter's plant to the downstream delivery point over a given period.

For example, the parties may agree to a monthly transportation fee with a base unit price of $10 per metric ton of captured carbon. If the midstream company transports 130,000 metric tons of captured carbon during a given month, the transportation fee for that month is $1,300,000.

The transportation fee is the primary fee under the TSA, but other fees may also apply. For example, the midstream company may charge:

- Compression fees, if the project manager or sole operator delivers captured carbon at pressures that are insufficient to enter the midstream system. This situation requires the midstream company to compress the captured carbon until it meets applicable minimum pressure requirements.
- Blending fees, if the project manager or sole operator delivers captured carbon that does not meet applicable quality specifications. This situation requires the midstream company to blend the captured carbon with other captured carbon until it meets applicable quality specifications.

There are three main negotiation points for fees in a carbon capture TSA:

- How the fee increases are calculated.
- The timing of fee escalation.
- Industry considerations.

Fee Escalation Mechanisms

Most TSAs provide mechanisms to annually increase or escalate the base unit price or other fees payable under the agreement to keep pace with inflation. In oil and gas TSAs, fees typically escalate based on the annual percentage increase in the consumer price index (CPI). Many midstream companies also prefer to use the CPI for fee escalation in a carbon capture TSA.

However, because tax credits generated by CCS projects are escalated based on the gross national product (GNP) deflator index, project managers and sole operators may prefer to base fee escalation on this less common GNP deflator index. Linking TSA fee escalation to the tax credit escalation ensures that both increase by the same percentage, eliminating potential imbalances arising from different escalation bases.

Fee Escalation Timing

TSAs are often executed several years before a CCS project starts commercial operations. The project manager or sole operator and the midstream company often negotiate when the fee escalation should begin. Midstream companies typically push to begin fee escalation immediately (for example, on the first anniversary of the TSA and each anniversary thereafter). Conversely, project managers or sole operators push to begin fee escalation after the project begins operating (for example, on the first anniversary of the date the project begins commercial operations).

While the timing of fee escalation is not often a major issue in negotiating a TSA, it can have an outsize effect. Further, depending on the economy's overall inflation level, changing the timing of when fees are escalated can shift the TSA fees by as much as 15%.

The Changing Industry

The CCS industry is in its early stages of development. Future changes in regulations or incentives might alter the economics of a carbon capture project.

On the positive side, current incentives may be expanded, or new incentive programs may be created. For example:

- The federal government may increase the value of the 45Q tax credits for CCS projects as it did with the Inflation Reduction Act in 2022.
- States may create their own incentive systems for CCS projects, such as California's low carbon fuel standard offset system.

Midstream companies often try to capture the value of expanded or new incentives by including in the TSA the right to increase service fees if existing incentives are expanded or new incentives are created.

On the negative side, the Federal Energy Regulatory Commission, the EPA, or state regulators may make current CCS regulations more stringent. This potential regulation may require CCS project participants to incur additional costs to comply with the stricter rules. Midstream companies try to cover these potential increased costs by including in the TSA the right to increase service fees if regulation costs materially increase.

Project managers and sole operators may resist including price increase rights in the TSA unless they can negotiate similar increase or pass-through rights under their upstream agreements with the emitters.

If the TSA includes price increase rights, the parties often negotiate limitations on these rights. For example, project managers and sole operators may seek caps on fee increases or require that fee increases be proportionate to the increase in incentives or in regulatory costs incurred by the midstream company.

TERMINATION RIGHTS

Many of the termination rights in a carbon capture TSA are the same as those in an oil and gas TSA. These rights may include the ability to terminate for:

- A party's failure to satisfy conditions precedent by applicable deadlines.
- The project manager's or sole operator's failure to pay service fees when due.
- A party's uncured material breach of a covenant.
- Extended events of force majeure.

However, two additional termination rights that are unique to carbon captures TSAs are termination triggered by:

- The elimination or material devaluation of tax credits for the CCS project.
- The termination of the project manager's or sole operator's arrangement with the upstream emitter or downstream injection site owner.

Elimination or Devaluation of Tax Credits

Tax credits are the primary economic driver of CCS projects. If these credits are eliminated or lowered below certain thresholds, the CCS project as a whole will no longer be viable. Therefore, project managers and sole operators seek the right to terminate the TSA in this scenario to avoid paying shortfall fees throughout the TSA's term without the revenue from tax credits.

Most midstream companies resist including this type of termination right because the bulk of their capital expenditures occurs early in the TSA's term through the build-out of the midstream system. These expenditures are then recouped over the TSA's term through service or shortfall fees. If the TSA terminates early because of changes to tax credits, the midstream company may never recoup its capital expenditures.

Potential compromises exist on this issue (for example, the project manager or sole operator may agree to reimburse the midstream company for a portion of its capital expenditures), but reaching a resolution on this termination right may be difficult for the parties.

Termination with Upstream Emitter or Downstream Injection Site Owner

Project managers and sole operators negotiate to include the right to terminate the TSA if either:

- **Their agreement with the upstream emitter terminates.** In this case, no carbon would be captured or transported on the midstream system, resulting in shortfall fees. Without the captured carbon, the project manager or sole operator would not have the revenue stream to pay shortfall fees.
- **The pore space lease terminates.** In this case, no captured carbon could be sequestered underground. The project manager or sole operator would be forced to stop transporting captured carbon on the midstream system, resulting in both shortfall fees and the inability to pay the fees for lack of a supporting revenue stream.

Midstream companies resist these termination rights to ensure that they can recoup their early capital expenditures.

LIABILITY AND INDEMNITY ALLOCATION

The parties to a carbon capture TSA generally allocate liabilities and related indemnity rights along the same lines as in oil and gas TSAs. For example, the parties may agree to a fault-based liability allocation, under which each party agrees to:

- Bear any damages or liabilities that are caused by its own actions.
- Indemnify the other party for damages or liabilities that the other party suffers because of the first party's actions.

For example, if a project manager is negligent in its maintenance of the downstream injection equipment and a resulting equipment failure causes damages to the pipeline, the project manager must cover those damages under the fault-based liability and indemnity allocation.

Alternatively, the parties to a carbon capture TSA may agree to a no-fault (knock-for-knock) liability and indemnity allocation, under which each party agrees to:

- Bear any damages or liabilities that it suffers, regardless of which party caused them.
- Indemnify the other party to the extent that the other party suffers any damages or liabilities due to the first party's actions.

For example, if the midstream company is negligent in its maintenance of the pipeline and a resulting pipeline failure injures one of the project manager's employees, the project manager is responsible for any liabilities related to the employee's injuries. If the project manager's employee successfully sues the midstream company for damages, the midstream company would be entitled to reimbursement from the project manager for those damages under the knock-for-knock liability and indemnity allocation. (For more on knock-for-knock indemnities in the oil and gas context, see General Contract Clauses: Knock-for-Knock Indemnification Provision (TX) on Practical Law.)

The parties may agree to a hybrid approach to the liability allocation. A common hybrid approach is a knock-for-knock liability allocation with exceptions for liabilities resulting from a party's gross negligence or willful misconduct. Under this approach:

- Each party bears any damages that it suffers, regardless of which party caused them, unless the damages are caused by the other party's gross negligence or willful misconduct.

- The party who acted with gross negligence or willful misconduct bears the damages it caused.

There are two unique liability allocation considerations for carbon capture TSAs:

- **Back-to-back indemnity.** The project manager or sole operator may seek back-to-back indemnity arrangements covering any indemnity obligation it has to the upstream emitter for damages caused by the midstream company. This type of arrangement protects the project manager and sole operator from damages caused by its upstream or midstream counterparties. For example, in its agreement with the upstream emitter, a project manager may agree to indemnify the emitter for any damages to the emitter's equipment caused by the operation of the midstream system. In turn, the project manager may push for an indemnity from the midstream company that covers any damages to the upstream equipment caused by the midstream company's operation of the midstream system. In this case, if a pipeline rupture damages the upstream emitter's equipment:
  - the project manager would be required to cover those damages under its indemnity of the upstream emitter; and
  - the midstream company would be required to cover the project manager's payments to the upstream emitter under its indemnity of the project manager.
- **Tax credit indemnity.** The project manager or sole operator may want to include an indemnity for the recapture or disallowance of any tax credits that is caused by the midstream company. For example, if there is a catastrophic problem on the pipeline:
  - a significant portion of the captured carbon in the pipeline may leak into the atmosphere;
  - the upstream emitter (in a project under the partnership model) or sole operator (in a project under the sole operator model) will not be able to claim tax credits for the leaked captured carbon (which will never be sequestered); and
  - if the pipeline problem also causes damage to the downstream sequestration site and captured carbon leaks from the sequestration reservoir, the upstream emitter or sole operator may be subject to the recapture of previously claimed tax credits for the carbon that leaked out of sequestration.

For projects under the partnership model, the indemnity is generally not straightforward and would likely take the form of a back-to-back indemnity. The upstream emitter is the party claiming tax credits, and the project manager may be required to indemnify the upstream emitter for the recapture or disallowance of tax credits caused by the operation of the midstream system. The project manager, in turn, would seek an indemnity from the midstream company for the same recapture or disallowance of tax credits caused by the operation of the midstream system.

For projects under the sole operator model, the tax credit indemnity is likely more straightforward. The midstream company would directly indemnify the sole operator (the party claiming tax credits) for the loss of tax credits.