FINANCING US CARBON CAPTURE PROJECTS

DEVELOPING, FINANCING, STRUCTURING, AND BRINGING ONLINE CARBON CAPTURE, USE, AND SEQUESTRATION PROJECTS INVOLVES A COMPLEX SET OF OVERLAPPING LEGAL REGIMES, COMMERCIAL CONSIDERATIONS, BUSINESS DECISIONS, AND PARTIES WITH DIFFERENT OUTLOOKS AS TO THE RETURN PROFILE OF THE PROJECT.

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We have developed this article through discussions with sponsors, cash and tax equity investors, and lenders, viewing projects from both an emitter and sequestration party angle. The article identifies the key commercial concepts participants will have to consider as they move a deal through development and construction to its commercial operation date, and provides legal structuring solutions tailored to accommodate varying transactional needs. Importantly, the unique risk profile of CCUS projects differs from mainstream clean energy deals - eg wind and solar - and raises an array of lending and investing issues to consider.

We have provided a series of structures, each of which is designed to comply with the requirements under section 45Q of the Internal Revenue Code (Code), the Treasury Regulations thereunder, and current IRS guidance. Section 45Q is an emission reduction tax credit (ERTC) because the value of the credit is based on the total carbon oxide emissions that are permanently sequestered. The ERTC is payable on a per ton basis provided minimum tonnage requirements are met with respect to certain activities. A lower ERTC is available for activities that use carbon as feedstock for end-products. This contrasts with the production tax credit, which is measured based on each unit of production, and the investment tax credit, which is measured using a property's eligible tax basis.

CCUS projects

A carbon capture, use, and sequestration (CCUS) project is a facility with specialised equipment, the CCUS element, that enables the facility to capture carbon emissions that it would otherwise release into the atmosphere. Examples of projects under active consideration, and various phases in the process, as of the time of this article are:

- *Ethanol* - Relatively small capital requirements; carbon extraction tech is well developed;
- *Gas processing* - Mature technology, easy to capture the carbon, but less "green" in terms of environmental, social, and governance (ESG) considerations;
- *Hydrogen* - High capital commitment, higher risk, but lowest hanging fruit in terms of ESG considerations and carbon separation;
- *Coal power plant* - Negative ESG and questions on longevity, but ERTC can be significant;
- *Natural gas power plant* - Carbon extraction is expensive, but better ESG considerations;
- *Biomass and other* - Small projects that need proof of scalability, otherwise viable.

In order for the CCUS element to enable the overall project to qualify for the ERTC, two objectives must be satisfied.

The first objective, reflecting the reality of industrial production, is the capture of carbon oxides. There are two methods to capture carbon oxides. Under the first method, the CCUS element is added to an existing facility that emits carbon oxides. The second method is to integrate into the design of a new facility – eg a petrochemical plant – technology that will capture carbon emissions. In each instance, the capture technology requires infrastructure eg, to liquefy or compress and transport the carbon to a safe, permanent, sequestration site. From a federal income tax perspective, only the portion of the facility that is involved in the capture and emission of carbon is analysed for ERTC eligibility, meaning the point at which carbon is transmitted for storage or other uses is not impactful to whether an overall facility gives rise to the ERTC.[1]

The second objective is either (i) the permanent sequestration of captured carbon or (ii) the sale of that carbon to an offtaker for use in enhanced oil recovery or utilisation in certain chemical processes. Similar to the emissions side of the equation, this is a large-scale project that requires infrastructure to transport the carbon that will be sequestered, with a further element to ensure permanent storage typically in an underground saline cavern. The sequestration element needs a series of state and federal environmental permits specific to the storage of carbon – the most common permit is an "EPA Class VI" permit that permits the user to store carbon underground. In addition, parties must obtain pipeline permits and rights of way in order to build out the transport infrastructure. Once captured carbon is sequestered, the sequestration party must ensure that the carbon does not escape, which requires the development of monitoring tools.

A source of financing on the sequestration side can be found in the ERTC. As discussed

in detail below, an emitter that captures carbon and prepares for sequestration can pass the ERTC to a party that sequesters the captured carbon. This arrangement provides an important tool to a sequestration party to attract a financing party that has tax capacity.

For this article, we focus on facilities into which the CCUS technology is embedded into a facility with emissions and viewed as a single investment; we are aware of transactions in which the owner of a CCUS element will license its technology or lease equipment to an emitter, which raises commercial considerations that we will address in a separate article.

Parties that seek to utilise captured carbon for producing goods for which there is a commercial market – eg a tile manufacturing plant – must undertake a life-cycle analysis as relates to the captured carbon; this analysis must be set forth in an independent report reviewed by the IRS and Department of Energy.[2]

Commercial primer

ERTC transactions consist of the following players:

- *Emissions sponsor* – The party that develops, constructs, and brings online a CCUS project. Historically, with the exception of large funds and private equity, sponsors are capital intensive and therefore have limited tax liability, making them unlikely to efficiently utilise the ERTC.
- *Tax investor or tax equity* – An investor, or a syndicate of investors, that primarily relies on the ERTCs for a return of and on its capital. Tax equity investors will enter a project in partnership form so that they can utilise flexible economic, and consequently, ERTC, sharing provisions.
- *Sequestration sponsor, which can also consist of a tax equity investor* – The party that brings online and operates the storage and transportation infrastructure to ensure permanent carbon sequestration.
- *Lender* – Provides a mixture of construction financing and after COD, permanent secured debt.

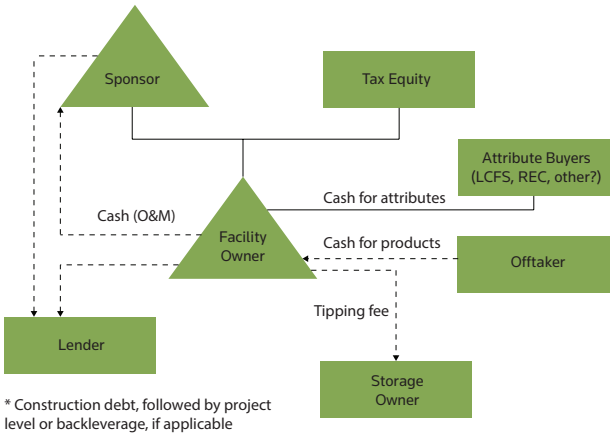
Understanding and evaluating cashflows provides the foundation for developing a financial model required to finance a CCUS project. In contrast to wind and solar tax equity deals, CCUS may have limited and unstable cashflows, depending in large part on the type of facility being financed, meaning the ERTC can account for a significant portion of the return profile.

Although each project will have unique characteristics, common to many projects are the following:

- *Cash inflows* – Product sales, eg petrochemicals, electricity; environmental attribute sales, if applicable, eg renewable energy certificates, carbon offsets, renewable identification numbers; and ancillary services in power markets, eg capacity payments, if CCUS is associated with electricity generation
- *Cash outflows* – Operations and maintenance payments; feedstock purchase; sequestration payments/tipping fees; general and administrative; pipeline capacity/transportation payments, and debt service.

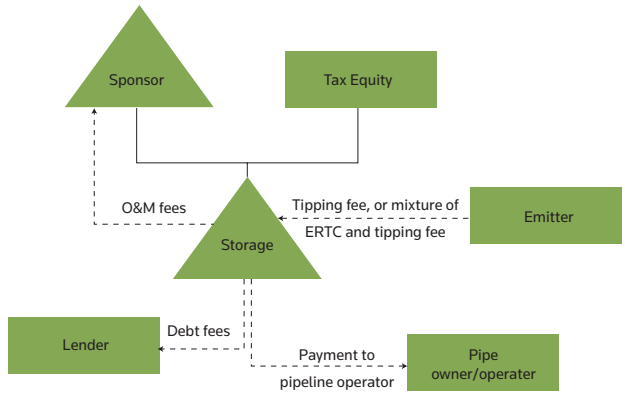
From an emitter's point of view, the structure is a variation of the following in which the Facility Owner is the emitter and also owns the CCUS element that captures the carbon for transportation to a sequestration party, see Figure 1.

FIGURE 1 - THE EMITTER



From a storage sponsor's point of view, the structure is a variation of the following in which the emitter owns the CCUS element, captures the carbon, and transports to permanent sequestration, see Figure 2.

FIGURE 2 - THE SPONSOR



The cost and revenue streams are as follows.

- *Offtake agreement and environmental attributes* – In general, any facility to which a CCUS element is attached sells products into a commercial market; whether it is profitable absent the ERTC depends on the facility, though given the scale of research and development, it is unlikely for CCUS projects to provide near term positive economics absent the ERTC. Undoubtedly, certain facilities are not sustainable absent federal and state incentives – eg refined coal

operations – though we note that tax authorities have failed to convince courts that projects must be profitable absent tax credits to qualify for a federal tax credit.[3] Perhaps in recognition of the fact that tax credits should not depend on positive economics, the IRS has suggested that credits can be allocated to partners even if a venture is only generating losses.[4]

Viable projects generate revenue from the plant's output – eg electricity, chemical products, plastics, cement, etc. Many states have established incentive regimes for parties committed to reducing their net carbon emissions footprint, which we refer to as "environmental attributes". California, for example, provides low carbon fuel standard (LCFS) credits to parties that generate electricity from low carbon emitting sources and sell into the California grid, which enables projects outside of California to qualify for LCFS credits. Those LCFS credits command significant sums on the open market, and can be freely sold, thereby enabling the sale of environmental attributes to provide cashflows.

Sophisticated financial products – eg swaps and hedges – can stablize the cashflows of the offtake arrangement, and in certain instances, the environmental attributes. For example, an electricity producer in California can sell its electricity on a merchant basis and generate a predictable stream of LCFS credits. A financial party, typically an investment bank, will underwrite a hedge to fix the project's electricity revenues; a separate financial contract can underwrite the LCFS revenue stream, or can be structured as a series of forward contracts for the purchase of the annual LCFS generation.

Developing a fixed cash flow stream establishes the baseline for the project's financial model, which determines the project's financeability. In sum, the parties can model sales from a project's electricity and LCFS credits within certain probability scenarios to predict the project's profitability. In merchant transactions, the hedge counterparty provides the price support, often with appropriate inflation escalators, injecting financial stability into the project.

- *Tipping/storage agreement* –To claim the ERTC, parties that capture carbon oxide must either physically or contractually sequester the carbon oxide. In some cases, the capturing party may pay another party for permanent sequestration sometimes referred to as a tipping fee. This can be a sunk cost for a capturing party - another reason the ERTC is important - or a potential profit centre if the ERTC is passed to the sequestration party. In other words, a capturing party has the ability to partially or wholly pass the ERTC to the party that physically sequesters the carbon oxide. Thus, the credit becomes a financial tool to manage a tipping fee, potentially converting the sequestration element from a sunk cost to a revenue stream.

Significantly, a taxpayer can annually determine how much of the ERTC to pass through, and to what taxpayers. This flexibility enables the development of a relatively liquid market for storage price management, ie, the credit can be passed to the party with the most attractive storage terms, noting pipeline/storage solution constraints. On the storage side, receiving ERTCs attracts tax equity investment. Parties that can efficiently manage their storage costs are able to more effectively utilize the ERTC, *thereby* incentivizing innovation and downward pricing pressure on storage activities.

Whether the IRS challenges a capturing party's indirect sale of ERTC via lower tipping fees or a revenue positive contract under which a storage party purchases carbon, remains to be seen. It would, however, make little sense for the IRS to challenge the monetization of the ERTC simply because it is monetized via offtake versus indirectly monetized through a tax equity partnership on the emitter/capture side—indeed, such a position would seemingly nullify the legislative purpose of the pass through mechanic.

Whether to pass the ERTCs to a storage/sequestration party or instead monetise them via partnership allocations on the capturing party side is, in part, a financial modelling exercise. Specifically, a party can evaluate the benefit of passing the credit, in whole, or in part, to a sequestration party over a 12-year period based on how much that party is willing to pay for the credit, and compare that amount with a tax equity investor's proposed investment into a CCUS project. In any event, parties should continue to view this as a source of both cost and revenue that is balanced with the amount of the credit they seek to monetise with their tax equity investors. Tax equity, regardless of on which side of the ERTC it invests, will likely want a contractually guaranteed credit pass-through as part of its capital commitment requirements.

- *Operation and maintenance; ancillary contracts* – The project owner will enter into an operation and maintenance agreement, typically with an affiliate of the sponsor for ongoing operations of the facility.

Depending on the project's activities, additional contracts may be required. For example, if a project sells power, an energy marketing agreement may be in place to manage power sales across the hub and node; a corresponding financial contract for price stabilisation is also typically in place if there is no fixed power purchase agreement. If a project sells carbon, similar arrangements may be negotiated to manage the sales and marketing process, including a financial contract to fix carbon prices, which can be indexed to the WTO carbon market. Projects that have tax equity investors and lenders will likely use price management contracts. Specifically, as those parties are financing to a set of projected cash

flows, they often demand a mixture of price support or parent guaranties to ensure stable cash flow's during the period in which they are involved in the project.

- *Debt servicing* – Debt will exist in a number of forms throughout the project's life. First, construction debt, originating at the project level, will be secured by an interest in the project company and interests therein. After a project achieves commercial operation, the debt will typically term-convert into permanent financing. This permanent debt can be either at the project level, or sit above the project company. Investors prefer the debt to be held outside the entity in which they invest. This issue becomes particularly acute when tax equity invests in a project. That investor wants guaranteed cashflows, if there are any in a CCUS project, while the bank wants access to the same cashflows to service its debt. In any event, the lender looks directly to the project for repayment, enabling the financial model to account for a fixed outflow when evaluating the project economics.

The capital structure

- *Tax equity* –Tax equity investors contribute capital to the project in exchange for a mixture of a significant amount of tax credits and some cash. IRS Revenue Procedure 2020-12 (the ERTC Guidance) provides guidance with respect to a tax equity investor's investment structure to mitigate the risk of the IRS challenging a transaction. Key risks that tax equity considers while evaluating a project:

i) Feedstock risk, the risk that the emitter into which tax equity invests cannot operate - Because there is no substitute emitter, a project going offline significantly impacts returns. Compare to solar projects (ITC granted on placed in service) and wind projects (multiple turbines mitigate impact of single problematic turbine).

ii) Bankruptcy - Traditional players in energy are exposed to commodity prices, resulting in higher risk of bankruptcy as a result of market fluctuations in commodity price.

iii) Production risk - Sustained production by the facility, with a corresponding carbon capture profile is uncertain.

iv) Offtake risk - Will there be a party to take the carbon. This is more pronounced when selling carbon as the project relies on the counterparty's ability to perform under its contracts.

The fact that the ERTC is production based and there is a 50% PAYGO feature discussed below enables tax equity to manage the project's risks. Under the ERTC Guidance, a tax investor must make a minimum 20% investment measured based off the total fixed capital commitment as of the time it acquires an interest. Next, 50% of the expected contributions (consisting of fixed and reasonably anticipated contingent investments) can be invested over time, commonly referred to as PAYGO, enabling investments to be made as the project's performance is confirmed. This is more lenient than wind projects, for which the IRS permits only 25% of payments to be subject to the performance of the wind farm.

A tax equity investor will size its PAYGO funding inversely relative to production probability ratios, which are denoted by a "P" followed by a number that indicates likelihood of production. For instance, a P99 scenario is the minimum projected output of the project 99% of the time, or the safest scenario used to size debt. A P1 scenario is the projected output in 1% of cases, or a very low probability upside scenario. Most projects are sized using P50 for equity investments.

An investor may size a deal to make PAYGO contributions only if production is at least 80% of a P50 production scenario, adjusted for cumulative production. For example, a tax equity investor may agree to fund 75% of its PAYGO obligations only at 80-85% of the P50, scaling up to 100% of its PAYGO obligations at 98% of the P50. In this manner, tax equity ensures its PAYGO is made only when production levels justify the investment; the ERTC Guidance also prevents tax equity from capturing too much ERTC-derivative upside by capping PAYGO at 50%. In other words, if the project significantly overperforms, tax equity cannot make contributions that would result in its PAYGO exceeding its fixed commitment.

As a practical point, if an investor is in a carbon capture-only venture that emits, captures and stores the carbon and pays a tipping fee, the projected aggregate fees can be modeled and included as part of the fixed investment. Additional amounts that the venture would need separate from this modeled investment would be PAYGO contributions. For example, funding overproduction of captured carbon to get more credits - eg, through technology enhancements and design changes enabling more efficient capture - could be paid from the PAYGO bucket enabling very efficient capital deployment and credit monetization.

- *Sponsor/cash equity* – The riskiest part of the capital stack, sponsors and cash equity investors are using a mixture of equity and secured financing to bring a project online. They neither have a security interest in the assets, nor do they typically receive a share of credits, through with the sheer magnitude of the ERTC, this may change.

Thus, to achieve satisfactory returns, cash equity funding for the project will come from early investors that are developing a project. This can take multiple forms. Private equity and angel investors are starting to enter into tax credit-driven projects at early development phases in order to capture more of the upside potential in the development-to-exit cycle. In contrast to the tax equity investor, these parties seek a cash-on-cash return on their capital from

the project's performance and/or through an exit. Often, a monetization event is coupled with a tax equity investor's capital contribution, the funds of which are used to repay part of the sponsor's capital expenditures for the project.

- *Debt* – The risk profile for a lender varies from tax equity and the sponsor, but not in ways investors typically view the transactions. Specifically, the lender in an ERTC deal is, somewhat counterintuitively, more exposed than an equity investor because it has no PAYGO option to derisk its debt facility. We expect to see lenders that have strong traditional oil and gas business units with expertise in petrochemicals and oil and gas operations, to more effectively manage debt risks on ERTC transactions compared to lenders accustomed to non-traditional energy debt finance.

As noted above, debt comes in a number of forms. Construction debt is often negotiated with an intent to use tax equity proceeds to partially retire the debt and convert the balance into permanent term financing. Within the construction debt and term conversion plan, there is a tranche of debt used to bridge the project to tax equity making its investment, referred to as a "tax equity bridge loan."

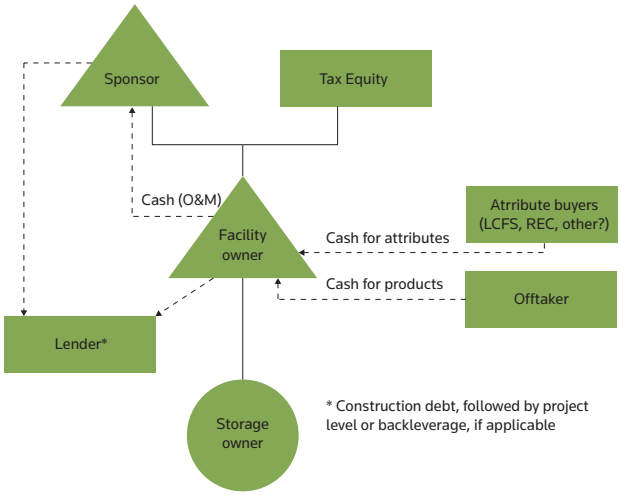
The lender will often have a full security package on the project, consisting of collateral in the form of the assets and the interests in the project companies that hold the assets. Tax equity prefers investing in a vehicle with some separation from the lender, so projects that term-convert often do so by placing the term debt above the tax equity partnership, referred to as backleverage. In addition to a security package, lenders will negotiate to have a priority interest on the cashflows distributed to the sponsor to ensure repayment. Lenders will also review the tax equity partnership agreement to ensure the provisions do not allow excess cash to flow out of the partnership if it would jeopardize the lender's repayment prospects.

The legal structure gallery

- *Capture and store; Integrated storage* – The first structure is the capture and store, or "Cap-n-Store". Under this structure, the sponsor, or one of its affiliates, will own both the capture and the storage element. This vertically integrated structure increases the costs and legal complexities (eg, additional permitting and operational costs), but also increases the profit potential of the project. An owner of the storage facility is free to contract with other emitters for the sequestration of their captured carbon. This additional income stream (and potential for more tax credit streams) opens up additional financing opportunities for parties that can effectively model the benefits associated with owning the sequestration. The structure looks as follows in Figure 3.

The sponsor will often legally segregate the storage component from the capture component. This is primarily for non-tax reasons, in particular because tax equity will seek a liability shield with respect to the storage activities.

FIGURE 3 - CAP-N-STORE



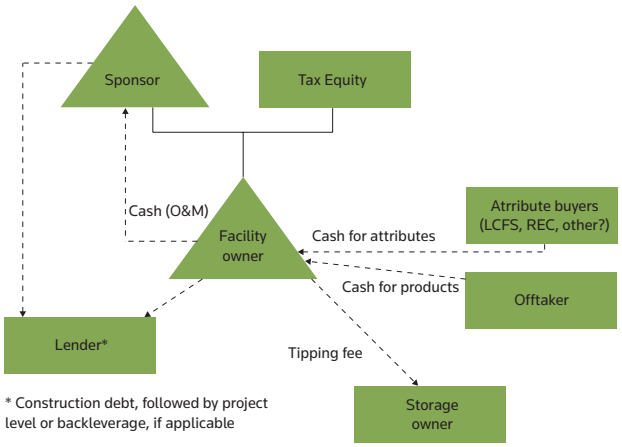
Another benefit of separating the storage component from the capture plant is the ability to separately insure leakage risks. Insurance products that underwrite leakage risk can better evaluate and insure a free-standing storage facility versus a combination of capture and storage facility; more vexing for these underwriters is evaluating and pricing the actual leakage risk, given that the states do not have uniform environmental rules related to leakage.

- *Capture and toss; separate storage* - Under the Cap-n-Toss (see Figure 4), an emitter captures carbon and contracts with a third party to permanently sequester that carbon. Under this structure, the emitter may retain and monetise the ERTC, or may elect to pass part or all of that credit to the sequestration party. This is a significant differentiating factor in comparison to the production tax credit and the investment tax credit, each of which are available only to the taxpayer that either produces the goods for which a credit is available, or that places in service the equipment that gives rise to the credit.

Commercially, this increases the value of carbon and has the potential to create a market whereby the storage activities can be a potential revenue generator. The sequestration party is presumably incentivised to take into account the value of the tax credit that it will receive from the emitter.

If the ERTC is passed through, the parties can negotiate the value of the credit in a number of ways. The simplest is for the sequestration party to charge a reduced offtake and sequestration fee, though depending on the market, it is possible that the offtake arrangement results in the sequestration party paying for the carbon in order to receive the benefit of the tax credit. This arrangement enables the emitter to

FIGURE 4 - CAP-N-TOSS



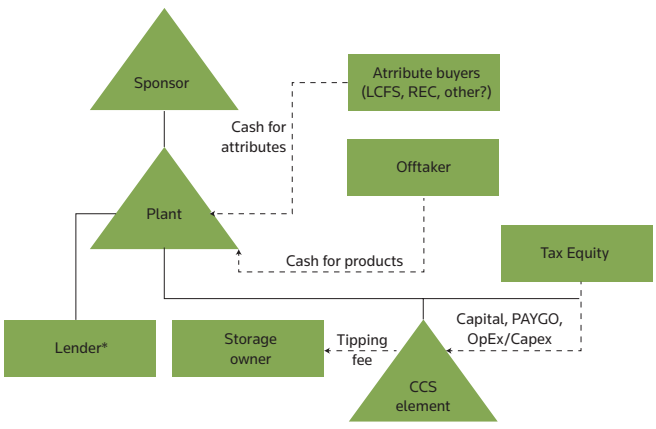
charge for carbon, but do so in a manner that does not give rise to the reduced credit in the enhanced oil recovery and utilisation categories. Accordingly, the value of the credit remains constant notwithstanding a market for the carbon sale.

Another way parties can achieve this outcome is if the buyer of the facility's products is the same party, for tax purposes, that owns the sequestration plant and has a permit to permanently sequester carbon. For example, any activity that involves the sale of goods – eg electricity or petrochemicals – can include in the sale contract a pass-through of the credit; the offtake arrangement can price the value of the credit that is passed on to that sequestration party. Commercial terms of this contract are likely to be complicated as the amount, and consequently value, of the captured carbon will vary on an annual basis. Moreover, additional infrastructure may have to be built in order to transport and store the carbon.

- *Strip and capture; move CCUS element* – Under the Strip-n-Cap (see Figure 4), the parties can either legally, or for tax purposes only, separate the CCS element from the facility so that tax equity invests only with respect to the capture equipment. This structure puts pressure on the tax outcome as the IRS may take issue with having an interest where the return is only from tax benefits (here, depreciation and ERTCs). One way to remove some of this tax pressure would be for the CCS element to be licensed to the facility or plant to create a revenue stream that supports more business activities for tax purposes.
- *Sale leaseback* – Under the sale leaseback (see Figure 6), tax equity would purchase either the facility or the CCS element and lease it back to the sponsor in a manner that ensures tax ownership remains with tax equity. In this manner, tax equity would benefit from all the ERTCs and depreciation, and not have to rely on PAYGO. The sponsor benefits by raising more of the capital stack upfront, though if there is a large prepayment, this benefit can be reduced.

The drawback from a tax perspective is whether the lease will be respected as retaining tax ownership with tax equity if the lessee is undertaking all the work with respect to the facility and arranging for the carbon sequestration. In contrast to solar facilities where the credit vests upon being placed in service, the ERTC requires the taxpayer to contract for the sequestration of the carbon in order to qualify for the ERTC. Thus, if the taxpayer is deemed to be the lessee, the ERTC may not flow to tax equity. Separate from the tax issues are important commercial issues unique to the structure, eg whether tax equity has the right to pass credits to another party, and if so, in what amounts.

FIGURE 5 - STRIP-N-CAP



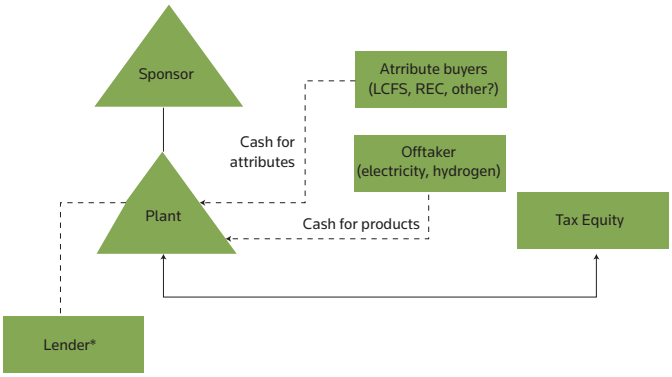
Legal considerations

In addition to its commercial complexity, a successful ERTC transaction requires structuring to comply with two legal principles. The first is ensuring the availability of the ERTC. The second legal principle is ensuring the parties can take advantage of the ERTC.

On the second point, the ERTC will likely be allocated using a limited liability company treated as a partnership for federal income tax purposes. At a high level, the partnership must be a bona fide partnership in which the participants make equity investments in exchange for a share of the venture's profits and losses.

The ERTC Guidance suggests that the IRS will respect ERTC partnerships even in a non-economic setting. Treasury Regulations section 1.704-1(b)(4)(ii), which the ERTC Guidance cites, provides that the ERTC, since it is not an investment tax credit under Code section 38, will be allocated among the partners consistent with expenditures of the partnership or other items that give rise to downward basis adjustments. Section 4.09 of ERTC Guidance cites to this principle in connection with providing that a loss venture can allocate the ERTC absent items of income. More specifically, the ERTC Guidance recognizes that some carbon capture activities may be commercially

FIGURE 6 - LEASEBACK



profitable - eg sale of carbon to an enhanced oil recovery activity - while some may not generate any income based on the economic arrangement, eg partnership pays a storage facility owner to sequester captured carbon. Notably, partnerships that capture carbon and pay a third party to securely store the carbon are essentially loss generators made viable by the ERTC. Accordingly, the guidance divides acceptable allocation schema among (1) ventures that generate income and (2) ventures for which the partnership is not paid and thus generate loss. Thus, allocations of carbon credits should follow allocations of bottom line net income or loss, ie positive or negative income related to the carbon sales.

At the project level, contracts with guaranteed revenue streams, including from related parties, are permissible. Under the ERTC Guidance, no person involved with the partnership may directly or indirectly guarantee an investor's ability to claim the carbon credit. However, arm's-length, long-term carbon purchase agreements that provide for guaranteed payments - eg take-or-pay, supply-or-pay, and other full-capacity contracts with associated payment streams - even if the contracting parties are related, are not treated as guarantees.

While there is no explicit prohibition on a credit availability guarantee, a conservative read of the ERTC Guidance suggests that an investor cannot have an ERTC guarantee, though the guidance stops short of blocking commercial arrangements - eg a cash sweep for lost ERTCs due to under-production - from the structure. Commercially, these contracts will guarantee a revenue stream for investors, but without actual sequestration, the projects will not generate carbon credits. As a result, contract termination values should take into account shortfalls in projected carbon credits. The flip side is that the contract's base price could be lower for the project company if the project company passes along part of the carbon credit value to its counterparty. A lower base price would preserve cash to pay any termination fees for credit shortfalls on the back end.

The below example assumes a typical partnership structure for which there is no election in place to pass through the ERTC to another taxpayer. We have assumed, for simplicity, the example has been structured consistent with the ERTC Guidance.

Assume a sponsor and tax investor enter into a joint venture for the financing of a petrochemical plant that will cost US$500m to achieve commercial operation. The plant is projected to emit 500,000 tons of carbon per year, all of which will be captured, liquefied and transported to a sequestration party for permanent sequestration.

The tax equity investor commits US$250m to the project, structured as US$50m at the commercial operation date, US$75m to fund ongoing operating expenses, payable at US$15m/year in years 1–5, and US$125m deferred contributions dependent on production. Tax equity sizes the US$125m PAYGO based on a P50 scenario of 500,000 tons of carbon emissions, requiring at least 80% of P50 to fund. Tax equity agrees to fund 80% of each US$1 of ERTC, so that at 80% of P50, it funds 75% of that amount, at 90% of P50, 90%, and at 100% of P50, 100%.

TABLE 1

			Liability	350	350
Assets	Tax	Book	Equity	Tax	Book
Facility	500,000,000	500,000,000	Tax Equity	65,000,000	65,000,000
Cash	15,000,000	15,000,000	Sponsor	100,000,000	100,000,000
	515,000,000	515,000,000	–	515,000,000	515,000,000

The parties agree to allocate items 99% to tax equity for years 1–12, and 1% to the sponsor. Cash is distributed 90% to the sponsor and 10% to tax equity. The sponsor uses US$100m equity and enters into a US$400m construction

TABLE 2

Items	Sponsor	Tax equity
Operating income	250,000	24,750,000
Depreciation	(500,000)	(49,500,000)
Net	(250,000)	(24,750,000)
ERTC[5]	250,000	24,750,000

TABLE 3

Tax Equity	Tax	Book
Initial capital	65,000,000	65,000,000
Net Operating Income	(24,750,000)	(24,750,000)
ERTC	–	–
Cash distribution	(2,500,000)	(2,500,000)
PAYGO contribution	20,000,000	20,000,000
OpEx contribution	15,000,000	15,000,000
Ending Capital	72,750,000	72,750,000

TABLE 4

Sponsor	Tax	Book
Initial capital	100,000,000	100,000,000
Net Operating Income	(250,000)	(250,000)
ERTC	–	–
Cash distribution	(22,500,000)	(22,500,000)
Ending Capital	77,250,000	77,250,000

TABLE 5

			Liability	350	350
Assets	Tax	Book	Equity	Tax	Book
Facility	450,000,000	450,000,000	Tax Equity	72,750,000	72,750,000
Cash	50,000,000	50,000,000	Sponsor	77,250,000	77,250,000
	500,000,000	500,000,000		500,000,000	500,000,000

facility to bring the project online. Tax equity's US$50m contribution is used to repay part of the construction facility and term-convert the facility into permanent financing. At formation, the partnership's capital account is as in Table 1.

For simplicity, we will assume the facility is subject to straight line depreciation over ten years. The facility generates revenue from the sale of refined petroleum products, eg gasoline, the process for which generates carbon emissions that the facility intends to capture. It enters into a take-or-pay contract for pipeline capacity to transport liquefied carbon to a sequestration site, where it pays a tipping fee for each unit of carbon sequestered. These contracts are negotiated using the P50, with additional tolling fees payable if more than 500,000 tons of carbon are transported on an annual basis.

In year 1, the partnership has US$100m of revenue from its refinery operations and US$75m of operating expenses. It captured 500,000 tons of carbon, which it transported for permanent sequestration, and has US$25m of cash available for distribution.

Thus, the first year items are as in Table 2.

At the end of the first year, and assuming tax equity funds at full PAYGO and its operating expenses, the capital accounts are computed as in Tables 3 and 4.

At the end of year 1, the capital accounts are as follows in Table 5.

In year 2, the partnership has US$75m of refinery income, incurs US$70m of operating expenses and repays US$25m on its loan. It captured 250,000 tons of carbon, which it transported for permanent sequestration. It has no cash to distribute. Thus, the second year items are as in Table 6.

At the end of the second year, the project has produced below P50, so tax equity will not fund any PAYGO, but it has an operating expense obligation; the capital accounts are computed as in Table 7 and Table 8.

TABLE 6

Items	Sponsor	Tax equity
Operating income	(50,000)	(4,950,000)
Depreciation	(500,000)	(49,500,000)
Net	(550,000)	(54,450,000)
ERTC	125,000	12,375,000

TABLE 7

Tax Equity	Tax	Book
Initial capital	72,750,000	72,750,000
Net Operating Income	(54,450,000)	(54,450,000)
ERTC	–	–
PAYGO	–	–
OpEx	15,000,000	15,000,000
Ending Capital	33,300,000	33,300,000

TABLE 8

Sponsor	Tax	Book
Initial capital	77,250,000	77,250,000
Net Operating Income	(550,000)	(550,000)
ERTC	–	–
Cash	–	–
Ending Capital	76,700,000	76,700,000

At the end of year 2, the capital accounts are as follows in Table 9.

TABLE 9

			Liability	325,000,000	325,000,000
Assets	Tax	Book	Equity	Tax	Book
Facility	400,000,000	400,000,000	Tax Equity	33,300,000	33,300,000
Cash	35,000,000	35,000,000	Sponsor	76,700,000	76,700,000
	435,000,000	435,000,000		435,000,000	435,000,000

As the above example demonstrates, modelling and annually accounting for the ERTC, in addition to the balance of the facility's operations are crucial to fully evaluating a deal. ■

Footnotes

1 - See Treas. Reg. 1.45Q-2(g) and IRS Notice 2020–12
2 - See generally Treas. Reg. 1.45Q-4
3 - See eg, Cross Refined Coal
4 - IRS Revenue Procedure 2020–12
5 - For simplicity, we have assumed US$50/ton of credit