

GREEN GAS DELAWARE STATUTORY TRUST, METHANE BIO,
LLC, TAX MATTERS PARTNER, ET AL.,¹ PETITIONERS *v.*
COMMISSIONER OF INTERNAL REVENUE,
RESPONDENT

Docket Nos. 26965–09, 13698–10, Filed July 14, 2016.
14409–10.

Ps are the tax matters partners for G and N, Delaware statutory trusts that were purportedly involved in the production and sales of landfill gas to RTC, which had entered into landfill license agreements with the owners and operators of 24 landfills. G claimed credits for producing fuel from a non-conventional source under I.R.C. sec. 45K (and its predecessor, I.R.C. sec. 29) with respect to landfill gas asserted to have been produced from 23 landfills in 2005, 2006, and 2007. N claimed such credits for one landfill for 2006 and 2007. The 24 landfills had varying degrees of equipment, monitoring, and production, from the nonexistent to the substantive, depending on the respective landfill and time period in question. The levels of documentation of the gas rights, gas sales, and operation and maintenance agreements between RTC and G and N were variable. So too was the documentation of actual landfill gas production and the documentation of various expenses for which G and N claimed deductions. *Held*: Untreated landfill gas is “qualified fuel” within the meaning of I.R.C. sec. 45K. *Held, further*, in the landfill gas industry, to qualify as a “facility for producing qualified fuels” under

¹Cases of the following petitioners are consolidated herewith: Pontiac Statutory Trust, Delaware Gas & Electric Inc., Tax Matters Partner, docket No. 13698–10; and Green Gas Delaware Statutory Trust, Methane Bio LLC, Tax Matters Partner, docket No. 14409–10.

I.R.C. sec. 45K(f)(1), a system of wells, pipes, blowers, and equipment for pretreatment and measuring production of gas, if necessary, must be connected to either a gas-to-energy system or a system that allows for storage and treatment of landfill gas before it is routed to gas pipelines or otherwise prepared for delivery to a customer. *Held, further*, for a landfill gas production facility, the “placed in service” date within the meaning of I.R.C. sec. 45K is the date when a gas-to-energy system becomes available for its specific function on a regular basis, not the date the first well is drilled. *Held, further*, G and N are not entitled to credits under I.R.C. sec. 45K because of inadequate substantiation of their alleged production and sale of landfill gas, except as to one landfill each and only for the time period during which gas-to-electricity equipment was running at those landfills. *Held, further*, G and N are not entitled to business expense deductions for 2006 and 2007, except to the extent they have been able to adequately corroborate those deductions as stated in this Opinion. *Held, further*, R’s determination of the distributive share of each G partner is sustained. *Held, further*, G and N are liable for accuracy-related penalties under I.R.C. sec. 6662 for the 2006 and 2007 tax years.

Robert J. Kovacev, Lisa M. Zarlenga, and Dianna Muth Mullis, for petitioners.

Stephen A. Haller, Karen O. Myrick, David L. Zoss, Michael T. Shelton, and John Schmittdiel, for respondent.

LARO, *Judge*: These cases are partnership-level proceedings subject to the unified audit and litigation procedures of the Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. No. 97–248, sec. 402(a), 96 Stat. at 648, and are before the Court consolidated for purposes of trial, briefing, and opinion.

In 2005, 2006, and 2007 (years at issue) Green Gas Delaware Statutory Trust (Green Gas) and Pontiac Statutory Trust (Pontiac Trust) were involved in the purported production and sales of landfill gas (LFG) to Resource Technology Corp. (RTC). Green Gas claimed nonconventional source fuel credits with respect to LFG allegedly produced from 23 landfills (landfills at issue) under section 45K² and section 29, the predecessor of section 45K (FNS credits),³ for 2005, 2006,

²Unless otherwise indicated, section references are to the Internal Revenue Code (Code) applicable for the years at issue. Rule references are to the Tax Court Rules of Practice and Procedure. Dollar amounts are rounded to the nearest dollar.

³The credit for production and sale of fuel from nonconventional sources

and 2007. Pontiac Trust claimed FNS credits for 2006 and 2007 for LFG allegedly produced at one landfill.

After conducting an audit, respondent disallowed Green Gas' and Pontiac Trust's FNS credits with respect to some landfills and reduced the amount of FNS credits with respect to other landfills. Respondent issued a notice of final partnership administrative adjustment (FPAA) to Green Gas for 2005 on August 20, 2009, and for 2006 and 2007 on March 26, 2010. Respondent issued separate FPAA's to Pontiac Trust for 2006 and 2007 on March 17, 2010. In addition, respondent disallowed certain business expense deductions for 2006 and 2007 for both Green Gas and Pontiac Trust and imposed accuracy-related penalties under section 6662(a). Green Gas and Pontiac Trust (partnerships) now seek redetermination of their Federal income tax deficiencies and accuracy-related penalties.

We decide the following issues:

1. whether the partnerships are entitled to FNS credits in excess of the amounts, if any, allowed by respondent. We hold that they are not except as set forth in this Opinion with respect to certain landfills;⁴
2. whether the partnerships are entitled to disallowed business expense deductions for 2006 and 2007. We hold that they are, to the extent stated in this Opinion;
3. whether respondent correctly determined Green Gas' partners' distributive shares. We hold that he did;
4. whether the partnerships are liable for the accuracy-related penalty under section 6662(a) for 2006 and 2007. We hold that they are.

was first enacted in the Crude Oil Windfall Profit Tax Act of 1980, Pub. L. No. 96-223, sec. 231, 94 Stat. at 268, and codified as Code sec. 44D, then renumbered as Code sec. 29 by the Deficit Reduction Act of 1984, Pub. L. No. 98-369, sec. 471(c), 98 Stat. at 826, and still later renumbered as Code sec. 45K by the Energy Policy Act of 2005, Pub. L. No. 109-58, sec. 1322, 119 Stat. at 1011. We use sec. 45K to designate the Code section providing for the nonconventional source fuel tax credit throughout this opinion, but we note that these provisions were in sec. 29 for a part of 2005.

⁴Respondent asserted an alternative argument that the transactions at issue should be disregarded as shams that served only to generate abusive tax credits. Because we uphold respondent's determinations on another theory, we do not need to address this argument.

FINDINGS OF FACT

I. *Overview of Entities Involved in the Alleged Production and Sales of Landfill Gas*A. *RTC*1. *In General*

RTC was incorporated under the laws of the State of Delaware. During the years at issue RTC was in the business of producing electricity from LFG as well as controlling and disposing of methane gas produced as a result of landfill operations.

In 2005–07 RTC was a wholly owned subsidiary of Rumpelstiltskin Corp. (Rumpelstiltskin), a company owned by Andrew Jahelka (30%), Leon Greenblatt (50%), and ROLJFLP Inc. (20%), a corporation owned by members of Richard Nichols' family.

From its inception in 1993 until 2001, George Calvert⁵ was the president of RTC. Mr. Calvert was a former partner at Arthur Andersen, a major accounting and consulting firm. Starting in 2001, John Connolly became the president of RTC. Mr. Connolly had a college degree in mechanical engineering and had prior experience in solid waste management before joining RTC. In 1999, RTC's board of directors consisted of Mr. Calvert, Mr. Greenblatt, Mr. Jahelka, and Mr. Nichols.⁶ During 2005–07, RTC's board of directors consisted of Mr. Nichols and Mr. Connolly.

RTC started out as a business investing in production of energy from nonconventional sources. At some point RTC implemented a successful project in Shelton, Connecticut, converting LFG into electricity. RTC, upon consultation with its tax attorneys at that time, Freeborn & Peters, developed a framework that allowed RTC to benefit from tax credits for

⁵At the request of respondent, we took judicial notice under Fed. R. Evid. 201 that Mr. Calvert was found guilty of conspiracy to defraud the United States by abusing sec. 29 and 45K tax credits. *United States v. Calvert*, No. 8:10-cr-325 (M.D. Fla. June 21, 2011) (jury verdict).

⁶Mr. Nichols has a college degree with a major in quantitative business analysis. Upon graduation, Mr. Nichols worked in several consulting companies, including Arthur Andersen, before becoming a trader on the Chicago Board of Options. One of Mr. Nichols' financial backers was Mr. Greenblatt. Mr. Greenblatt also backed Mr. Jahelka, who was Mr. Nichols' colleague.

production of qualified fuel under section 45K. RTC later used the same framework with certain modifications in its dealings with Green Gas and Pontiac Trust without receiving a separate opinion of a tax counsel on the proper tax treatment of such transactions.

2. RTC's Bankruptcy

By 1999 RTC became financially distressed. On or about November 15, 1999, three creditors filed an involuntary bankruptcy petition against RTC in the U.S. Bankruptcy Court for the Northern District of Illinois, Eastern Division under chapter 7 of the Bankruptcy Code. After RTC consented, the case was converted to a voluntary reorganization proceeding under chapter 11 of the Bankruptcy Code on January 18, 2000, effective on February 1, 2000. RTC was the debtor-in-possession (DIP) in the bankruptcy proceeding until the appointment of Gregg E. Szilagyi as chapter 11 trustee (chapter 11 trustee) on August 26, 2003.

On September 21, 2005, the bankruptcy court converted the RTC bankruptcy case to a chapter 7 liquidation proceeding, and appointed Jay A. Steinberg as the trustee for the RTC bankruptcy estate (chapter 7 trustee). Both the chapter 7 and the chapter 11 trustees kept Mr. Connolly and other RTC employees on the payroll as employees or independent contractors of the estate. Both the chapter 7 and the chapter 11 trustees reimbursed expenses for site visits of RTC employees.

3. Financing Arrangements During Bankruptcy

On February 3, 2000, the bankruptcy court entered an order authorizing RTC to obtain interim financing from Mr. Greenblatt, as agent for and on behalf of himself, Banco Panamericano, Inc. (Banco Panamericano), and Chiplase, Inc. (Chiplase) (collectively, DIP lenders). On February 29, 2000, RTC entered into a first amended DIP secured loan agreement and revolving note (DIP loan). By order dated March 2, 2000, the bankruptcy court authorized the DIP loan. Pursuant to that order, the bankruptcy court authorized the DIP lenders to either claim money at the source or collect from RTC when it received payments for services or similar proceeds.

On December 19, 2001, the bankruptcy court entered an order authorizing RTC to borrow funds from Aquila Energy Capital Corp. (Aquila). The bankruptcy court directed that RTC remit all payments from account debtors to Aquila. RTC entered into a financing arrangement with Aquila (Aquila DIP loan) to refinance the LFG collection facility and upgrade the gas-to-electricity facility to a solar turbine plant at the Pontiac landfill. Effective December 28, 2005, Aquila's rights under the Aquila DIP loan were acquired by RTC's successor in interest, Scattered Corp. (Scattered).

4. *Greenblatt Entities Settlement*

On March 16, 2006, the bankruptcy court entered an order approving a settlement between the RTC estate on one hand and Mr. Greenblatt, Banco Panamericano, Chiplease, and Scattered (collectively, Greenblatt entities) on the other. Among other things, the settlement conveyed the RTC estate's interest in various agreements with landfill owners to the Greenblatt entities.

On August 15, 2006, the bankruptcy court entered an order assigning the executory contracts between the partnerships and RTC pertaining to the landfills involved in these cases to Illinois Investment Trust (IIT), as designee of the Greenblatt entities, with Mr. Connolly stepping in as a trustee of IIT.

B. *Green Gas*

Green Gas is a statutory trust that was formed under the laws of the State of Delaware. Green Gas elected to be taxed as a partnership under section 301.7701-3, *Proced. & Admin. Regs.* At all relevant times, Methane Bio, LLC (Methane Bio), a limited liability company formed under the laws of the State of Delaware, was and is the tax matters partner of Green Gas as defined by section 6231(a)(7). During the years at issue Delaware Gas & Electric (DG&E) was the trustee of Green Gas and performed services for Green Gas in this capacity, including negotiating contracts and working with attorneys and investors.

As explained by Mr. Nichols, Green Gas was created for the purpose of monetizing tax credits available under section 45K. Mr. Nichols further explained that this monetization

created an additional stream of income to support the financially failing RTC.

Green Gas ceased its operations in 2007 when the provisions for FNS tax credits expired. Throughout the years of operation RTC was the only customer of Green Gas. Green Gas did not have any gas rights or gas sales agreements with any entities except RTC.

C. Pontiac Trust

Pontiac Trust is a statutory trust that was formed under the laws of the State of Delaware. Pontiac Trust elected to be taxed as a partnership under section 301.7701-3, *Proced. & Admin. Regs.* Pontiac was formed around April 2002 to facilitate investment in the Pontiac landfill.

From 2005 to 2007 Archimedes Gas & Electric, Inc., served as administrative and Series A trustee of Pontiac Trust. Michael Horrell controlled Archimedes Gas & Electric, Inc., and Voltaire Gas & Electric, Inc. and Red Gas, LLC served as Series B trustees. DG&E was the managing member of Red Gas, LLC and the tax matters partners of Pontiac Trust.

Pontiac Trust ceased its operations at the end of 2007 when provisions for the FNS credit expired.

D. Other Entities

1. Rumpelstiltskin

Rumpelstiltskin⁷ is a holding corporation incorporated in Nevada. Mr. Greenblatt owned 50% of Rumpelstiltskin's shares, Mr. Jahelka owned 30%, and Mr. Nichols owned another 20% through his estate planning entity, ROLJFLP, Inc.

In 1999 Mr. Jahelka acted as Rumpelstiltskin's president, treasurer, and secretary. Mr. Jahelka, Mr. Nichols, Lisa Nichols, Kevin Werner, and Leslie Jabine served on the board of directors. In 2005-07, Mr. Jahelka continued to serve as Rumpelstiltskin's president, with Mr. Nichols and Mr. Greenblatt serving as treasurer and secretary, respec-

⁷Rumpelstiltskin was not the only fanciful name the partnerships used for intermediary entities. For example, at various times the names of the intermediary entities were Arrivederci Gas GP, Buon Giorno Gas GP, Ciao Gas GP, Ali Gas GP, Borat Gas GP, Cohen Gas GP, Adios Gas GP, Bye Bye Gas GP, and C U Later Gas GP.

tively. The board of directors consisted of Mr. Jahelka, Mr. Nichols, and Mr. Greenblatt.

2. *DG&E*

DG&E is a corporation, a second-tier subsidiary of RTC and a third-tier subsidiary of Rumpelstiltskin. In 1999 Mr. Connolly was the president and vice president of DG&E, with Mr. Werner, Mr. Greenblatt, and Mr. Nichols holding other officer positions. Mr. Greenblatt, Mr. Jahelka, and Mr. Nichols served as directors of DG&E in 1999. In 2005–07 Mr. Nichols replaced Mr. Connolly as DG&E’s president. DG&E also added Mr. Werner to its board of directors. During all of the relevant years, Mr. Nichols, Mr. Jahelka, and Mr. Greenblatt owned and controlled the operations of DG&E either directly or through various holding entities, including Rumpelstiltskin.

3. *Banco Panamericano and Chiplease*

Mr. Greenblatt owned Banco Panamericano either directly or through one of his entities. Chiplease is a corporation wholly owned by Banco Panamericano. Both entities were part of the DIP loan arrangement with RTC.

4. *Scattered*

Mr. Greenblatt, Mr. Nichols, and Mr. Jahelka owned Scattered directly or through various entities in the same proportions as Rumpelstiltskin. On December 28, 2005, Scattered acquired rights as lender under the Aquila DIP loan arrangements and became RTC’s successor-in-interest in the bankruptcy proceedings.

II. *Landfills*

Before January 1, 1997, RTC entered into agreements with the owners and/or operators of each of the landfills at issue (landfill license agreements or LLAs). The names and locations of these landfills are: Beecher (Beecher, Ill.); Bi-State (Belleville, Ill.); Bloomington (Bloomington, Ill.); Clarion (Leeper, Pa.); Columbus (Columbus, Ga.); Elliott (Corpus Christi, Tex.); Fort Dodge (Fort Dodge, Iowa); Gary (Gary, Ind.); GNOL (Avondale, La.); Congress (Hillside, Ill.); Kewanee (Kewanee, Ill.); Lansing (Lansing, Ill.); Litchfield (Litchfield, Ill.); Lyons/McCook (McCook, Ill.); Chastang (Mt. Vernon, Ala.); New Haven (New Haven, Conn.); Peoria

(Brimfield, Ill.); Pontiac (Pontiac, Ill.); Rosencranse (Berlin, Pa.); Springfield (Springfield, Ill.); Taylor Ridge (Taylor Ridge, Ill.); Viola (Mercer County, Ill.); Wheatland (Columbus, Kan.); Wyandot (Carey, Ohio).

All 24 landfills were self-certified to the Federal Energy Regulatory Commission as qualified solid waste facilities under the Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117. In addition, the 12 landfills in Illinois were also certified as qualified solid waste energy facilities by the Illinois Commerce Commission.

We will refer to the following landfills when referenced together as venting/flaring landfills:⁸ Beecher, Bi-State, Bloomington, Chastang, Clarion, Columbus, Elliott, Fort Dodge, Gary, GNOL, Kewanee, Lansing, Litchfield, New Haven, Rosencranse, Taylor Ridge, Viola, Wheatland, and Wyandot. The remaining landfills (Congress, Lyons/McCook, Peoria, Pontiac, and Springfield) when referenced together are referred to as nonventing landfills.

Under the LLAs, RTC received the right to install LFG collection facilities, the right to collect and sell LFG, and the right to install and operate LFG-to-energy conversion projects and sell the converted electricity or other form of energy from the landfills. In return, RTC would pay royalties to landfill owners measured as a percentage of the sales of electricity produced with LFG from a particular landfill.

III. *Landfill-Related Agreements*

On July 1, 1999, RTC, as lessor, entered into gas rights agreements (GRAs) with Green Gas for all of the venting/flaring landfills. On the same date, RTC entered into gas sales agreements (GSAs) and operation and maintenance agreements (O&M) with Green Gas for all of the venting/flaring landfills. On January 1, 2000, RTC and Green Gas entered into first amended GRAs for all of the venting/flaring landfills.

For the Congress landfill, RTC, as lessor, entered into a GRA and a GSA with Hillside Gas Producers, LLC, on May 15, 1999. Mr. Connolly explained that the relationship with

⁸The origin of this name is related to the method RTC and the partnerships used to dispose of LFG. For the venting/flaring landfills, LFG was vented into the atmosphere or flared (burned) on site.

Hillside Gas Producers, LLC, ended sometime in March 2003, when Green Gas entered into a GRA, a GSA, and an O&M with RTC. However, the record does not contain any evidence corroborating his statements, including contracts between RTC and Green Gas with respect to the Congress landfill.

On July 1, 1999, RTC, as lessor, entered into GRAs with Illini Gas Producers, LLC, for the Lyons/McCook, Peoria, and Springfield landfills. On the same date, RTC entered into a GSA with Illini Gas Producers, LLC, for the Peoria and Springfield landfills. RTC had entered into a GSA with Biodyne, Inc., for the Lyons/McCook landfill three years before, on December 31, 1996. The partnerships assert that the GSA with Illini Gas Producers also covered the Lyons/McCook landfill. There is no other evidence on the record to support this assertion.

On January 1, 2000, RTC and Green Gas entered into a GRA with respect to the Lyons/McCook landfill. However, the record does not contain a GSA or an O&M agreement between RTC and Green Gas with respect to the Lyons/McCook landfill.

On April 20, 2002, RTC, as lessor, entered into two GRAs with Pontiac Trust for the Pontiac landfill. On the same date, RTC entered into two GSAs with Pontiac Trust for the Pontiac landfill. RTC and Pontiac Trust entered into two O&M agreements on April 10, 2002.

IV. *Alleged Production and Sale of LFG*

A. *LFG, Generally*

LFG is a natural byproduct of the decomposition of the organic matter deposited in municipal landfills in anaerobic (without oxygen) conditions. LFG contains roughly 50% to 55% methane and 45% to 50% carbon dioxide, with less than 1% nonmethane organic compounds and trace amounts of inorganic compounds. Methane content in LFG varies over time and depends on many factors, including the life cycle of a landfill.

Because untreated LFG can be volatile and corrosive, it is usually treated to remove impurities before use or transportation. However, sometimes LFG is used untreated; for example, for landfill leachate evaporation. LFG can also be

combusted in flares without pretreatment to comply with methane emissions environmental regulations. As a result of flaring, methane in LFG is oxidized and can no longer be used as fuel.

LFG emissions vary according to a number of parameters, including but not limited to the type of liner and cover installed at the landfill, the moisture content of the landfill, the trash composition of the landfill, and the climate in which a landfill is located. Over time, emissions of LFG can be visualized as a curve with maximum output achieved at the point when the landfill is still open and is accepting new waste but is very close to its maximum capacity and a few years after a landfill is closed. When a landfill stops accepting new waste, LFG emissions drop over time as decomposition of waste slows down. Because of the large number of factors affecting LFG emissions, it is statistically improbable to have a similar or the same amount of gas emitted over an extended period such as a year. LFG emissions may vary substantially even if measurements are taken daily.

B. LFG Production at Venting/Flaring Landfills

1. Equipment, Generally

None of the venting/flaring landfills was equipped with gas-to-electrical energy equipment or connected to such equipment elsewhere during the years at issue, except the Beecher and Lansing landfills. The parties stipulated, and we reincorporate that stipulation here, that RTC placed the operational facilities into service at Beecher and Lansing before July 1, 1998. The equipment at Beecher and Lansing was no longer operational during the years at issue.

Venting/flaring landfills, except Beecher and Lansing, had only minimal equipment on them. RTC drilled at least several wells, including wells necessary for feasibility testing, at each landfill by June 30, 1998. At some of the venting/flaring landfills, the wells were connected with a header pipe. Only a few venting/flaring landfills had flares installed by June 30, 1998, including Chastang and Gary.⁹ The record is

⁹This does not include the landfills for which the parties have stipulated that the facilities were placed in service as of June 30, 1998 (Beecher, Lan-

inconclusive as to when exactly the header pipe or flares were installed at all other venting/flaring landfills. The types of flares installed varied from landfill to landfill: Some had only the most basic tiki flares while others had blower utility and other types of flares. Bloomington and Fort Dodge did not have any flares installed.

During the years at issue the partnerships either flared or vented into the atmosphere all of the LFG from the venting/flaring landfills, allegedly to comply with environmental regulations. However, at least at some landfill owners had to install additional equipment to meet the regulatory requirements. The partnerships did not use LFG from venting/flaring landfills for leachate management or any other purpose except compliance with environmental regulations.

RTC's investment in drilling the wells and installing header pipes and flares at venting/flaring landfills was minimal as compared to the investment required to produce electricity from LFG.¹⁰ At that time, vertical wells cost from approximately \$3,000 to \$4,000 per 30-foot well to \$12,000 per 160-foot well, lateral pipe cost approximately \$8 to \$12 per foot, and an internal combustion engine or turbine to generate electricity cost approximately \$2 to \$3 million per megawatt.

2. Output Measurement and Documentation

At trial, the partnerships introduced into evidence numerous records allegedly substantiating the amount of gas produced from each landfill. These records included mostly site visit logs and invoices as well as spreadsheet computations describing how much LFG the partnerships received from each landfill and sold to RTC.¹¹ The partnerships did not introduce any testimony from the employees directly

sing, Lyons/McCook, Peoria, Pontiac, and Springfield).

¹⁰It was also minimal as compared to FNS credits generated by the alleged sales of LFG. The partnerships likely claimed FNS credits not only for 2005–07, but starting sometime in 1999, when Green Gas was first formed. This resulted in many years of income from FNS credits which are outside the scope of this litigation and likely outside the reach of respondent because of statute of limitations considerations.

¹¹These records were admitted over respondent's objections, which he renewed at the end of the trial. We will address the issue of credibility of these records later in the opinion.

involved in preparation of the site visit logs—of RTC or the partnerships—regarding the process of collecting the data in the site visit logs. The only person who testified to corroborate the amounts of LFG produced and the veracity of site visit logs was Mr. Connolly, who did not visit the landfills regularly in 2005–07 and did not independently verify the data he later used for invoices and calculations of tax credits.

For a number of landfills, the partnerships used estimates produced through the use of mathematical models such as the Landfill Gas Emission Model (LandGEM) or by reference to air emissions factors.¹² For other landfills, they estimated LFG production on the basis of industrial specifications of flares installed on site, such as flare capacity. For the landfills with site visit logs on the record, the partnerships allegedly based LFG production data on periodic readings of flare flow meters that were extrapolated to the entire period. The methods used by the partnerships in 2005–07 to substantiate amounts of LFG produced at venting/flaring landfills are summarized in the table below:

<i>Landfill</i>	<i>Method of Gas Production Measurement</i>
Beecher	Reading the chart recorder on the flare in 2004 and extrapolating the numbers to 2005.
Bi-State	By reference to air emissions factors.
Bloomington	Combination of LandGEM and air emissions factors.
Chastang	Off-site observations of the landfill flares burning and by reference to data from publicly available Alabama Department of Environmental Management Inspection Reports.
Clarion	Reading the chart recorder on the flare, meetings with site manager.
Columbus	Reading flow chart and meeting with site manager.
Elliott	Flow read on site visits from a chart-type recording meter on flare. Used 50% methane content as a default value unless measurement taken by a gas content measuring device.

¹²Mr. Connolly used the following formula to calculate air emissions factors: 0.5 cubic feet per minute (cfm) per foot of perforated pipe to 1.5 cubic feet per minute per foot of perforated pipe multiplied by the number of wells and their depth at a landfill.

<i>Landfill</i>	<i>Method of Gas Production Measurement</i>
Fort Dodge	Combination of LandGEM and air emissions factors.
Gary	By reference to industrial specifications for flares multiplied by the number of wells. Used 50% methane content as a default value.
GNOL	By reference to air emissions factors and LandGEM.
Kewanee	By reference to air emissions factors and LandGEM. Used 50% methane content as a default value.
Lansing	By reference of average of three LandGEM reports and flare capacity. Used 50% methane content as a default value unless an actual measurement was taken by a gas content measuring device.
Litchfield	Reading chart recorder on the flare and meeting with site manager.
New Haven	Reading chart recorder on the flare and meeting with site manager.
Rosencranse	By reference to air emissions factors.
Taylor Ridge	By reference to flare industrial specifications. Methane concentration sampled by a gas content measuring device.
Viola	By reference to air emissions factors.
Wheatland	Reading chart recorder on the flare and meeting with site manager. Used 50% default methane concentration.
Wyandot	Reading chart recorder on the flare and meeting with site manager. Used 50% default methane concentration.

We will discuss the reliability of the partnerships' selected methods for gas production documentation later in the Opinion.

C. LFG Sales at Venting/Flaring Landfills

Green Gas entered into GSAs with RTC with respect to all venting/flaring landfills. RTC agreed to purchase from Green Gas all LFG produced at each landfill at 30 cents per million British thermal units (mmBTU) of LFG. The price remained the same throughout the contract term. Neither Green Gas nor RTC attempted to renegotiate the price. Some of the GSAs contained a commercial quantity condition, which allowed for the rejection of the purchase of the gas by RTC if the gas produced was not of an economically viable

quantity for purchase. RTC had the option of waiving the condition if the commercial quantity condition was not met. RTC never exercised the right to reject with respect to any venting/flaring landfills during the years at issue.

The GSAs required the partnerships and RTC to execute a contemporaneous written document to memorialize each sale of LFG. The partnerships produced certain invoices from them to RTC that appear to be based on Mr. Connolly’s computations. Mr. Connolly, in turn, derived his computations from the numbers in the site visit logs or from mathematical models, as discussed above. Neither Mr. Connolly nor the partnerships’ representatives made any attempts to independently verify the information provided by RTC employees who completed the site visit logs. Mr. Connolly filled in the gaps in the data, such as methane content and gas flow rate, by extrapolating or by making assumptions, not from first-hand observation at the landfill.

The payments between RTC and Green Gas under the GSAs, the GRAs, and the O&Ms were netted for the venting/flaring landfills. If any amounts were due as a result of the netting from Green Gas to RTC, Green Gas would pay the amounts due to RTC’s creditors, including Greenblatt entities, directly under the DIP loan provisions. In turn, RTC could draw on the DIP loan to pay any amounts due to Green Gas as a result of netting, but it never had to do that.

D. LFG Production at Nonventing Landfills

1. Equipment

RTC placed an operational facility to produce methane from LFG as well as engines for production of electricity, in service at the Lyons/McCook, Peoria, Springfield, and Pontiac landfills before July 1, 1998. Congress had about 40 wells connected with a header pipe and an enclosed flare installed as of June 30, 1998.

During the years at issue, the gas-to-energy equipment was operational for the following periods:

<i>Landfill</i>	<i>Operational</i>	<i>Nonoperational</i>
Congress	1/1/2005–2/7/2006	2/8/2006–12/31/2007
Lyons/McCook	1/1/2005–Mid-Dec. 2005	Mid-Dec. 2005–12/31/2007
Peoria	1/1/2005–12/31/2007	N/A
Pontiac	1/1/2006–6/14/2006	6/15/2006–12/31/2007
Springfield	1/1/2005–1/31/2005	2/1/2005–12/31/2007

After electricity facilities stopped working at Congress, Lyons/McCook, Pontiac, and Springfield, the partnerships flared or vented LFG.

2. Output Measurement and Documentation

The partnerships were more careful with documenting and measuring the production of LFG while the gas-to-energy facilities were running at nonventing landfills.

At Congress, the partnerships periodically reviewed solar turbine reports through February 2006. After that they used flow readings from a chart type recording meter. They used the default 50% methane gas concentration with occasional sampling for methane content.

At the Lyons/McCook and Peoria landfills, the partnerships kept monthly power invoices for the electricity purchased by the utility. To calculate tax credits, they increased the invoices by the amount of so-called parasitic loads—the amount of energy necessary to keep the electricity facility running or lost in conversion to energy grade fuel. After the electricity facility stopped working at the end of 2005, the Lyons/McCook landfill had only a utility flare to dispose of LFG, but the partnerships continued claiming FNS credits attributable to the gas allegedly produced at the landfill and sold to RTC.

At the Pontiac and Springfield landfills, gas flow was measured by chart recorders on the flares. The partnerships used 50% methane concentration for calculations. After the shutdown of the gas-to-energy facility at Springfield, they vented LFG for some time before starting to flare it.

E. LFG Sales at Nonventing Landfills

Despite the fact that there are no written GSAs in evidence between Green Gas and RTC as to any of the nonventing landfills,¹³ Green Gas claimed FNS credits based on

¹³As discussed above, Hillside Gas Producers, LLC, had a GSA with RTC for the Congress landfill; Illini Gas, LLC, had a GSA for Peoria and Springfield; and Biodyne had a GSA with respect to Lyons. The partnerships assert that GRA and GSA agreements with respect to Congress were terminated sometime in March 2003, but they failed to produce a GRA and a GSA with Green Gas. On January 1, 2001, Green Gas entered into a GRA with respect to Lyons/McCook, but there is no evidence on the record except their assertions corroborating the existence of a GSA or its terms. They did not discuss whether the agreements with Illini Gas with respect

the alleged sales of LFG produced at nonventing landfills except Pontiac. The sales were reflected in the netting calculations prepared by Mr. Connolly.

Pontiac Trust sold LFG to RTC under the two GSAs for Pontiac landfill. The sales were reflected in the netting calculations prepared by Mr. Connolly.

The parties had the same arrangement for any amounts due after netting as for venting/flaring landfills, i.e., any amounts due from the partnerships were paid directly to DIP lenders and Aquila or Scattered.

F. Facts Specific to Certain Landfills

The following section describes the facts specific to individual venting/flaring landfills, including those discussed during the RTC bankruptcy proceedings.

1. *Beecher*

In August of 2000 RTC, as DIP, and Network Electric Co. entered into an agreement to construct a power plant at the Beecher landfill. The bankruptcy court approved the project. On October 8, 2004, the bankruptcy court entered an order which, among other things, approved termination of the Beecher LLA. The order was not stayed pending appeal. On November 2, 2004, the bankruptcy court issued an order authorizing the chapter 11 trustee to “take such steps as may be necessary to terminate [d]ebtor’s [Illinois Environmental Protection Agency (IEPA)] permit relating to operations at the Beecher Landfill facility”. On February 17, 2005, the bankruptcy court by order approved the chapter 11 trustee’s motion to reject the GRA and the GSA with respect to the Beecher landfill. Chiplase, Scattered, and the chapter 7 trustee did not seek to assume and assign the LLA, the GRA, the GSA, and the O&M relating to Beecher. On May 16, 2005, the U.S. District Court for the Northern District of Illinois in an unpublished opinion, *In re Res. Tech. Corp.*, No. 04 C 7389, 2005 WL 1155683 (N.D. Ill. May 16, 2005), dismissed as moot an appeal of the bankruptcy court order dated October 8, 2004.

to Peoria and Springfield were terminated at some point and whether Green Gas later entered into GRAs and GSAs with RTC with respect to these landfills.

Richard Walker allegedly read the flow meter at Beecher once a month in October, November, and December 2004. Each time the meter read 850 cubic feet per minute (cfm). The partnerships did not take flow meter readings in 2005 but extrapolated the flow rate data from 2004 to January through June 15, 2005.

In 2005 the LFG flow was insufficient to operate the solar turbine generator on site at Beecher. Consequently, there was no electricity produced or bought by third parties from the Beecher gas-to-energy facility.

2. *Bi-State*

The IEPA denied the Bi-State landowner's application to develop an active landfill gas collection and management system on site on July 10, 1998. The IEPA installed a gas flare system at the Bi-State landfill in 2003.

3. *Bloomington*

On February 14, 2008, the bankruptcy court entered an order denying the chapter 7 trustee's motion to assume and assign executory agreements relating to the Bloomington landfill. The District Court affirmed the order in a memorandum opinion dated November 7, 2008.

4. *Chastang*

At some point before 2005, Chastang Landfill, Inc., became the successor-in-interest to Transamerican Waste Industries, Inc. By order dated February 1, 2005, the bankruptcy court retroactively terminated the Chastang LLA as of June 25, 2003. The order was not stayed pending appeal. Mr. Connolly stated in an affidavit filed with the bankruptcy court that RTC was unable to operate at the Chastang landfill after June 2003. Moreover, Mr. Connolly explained that the LFG collection system installed by RTC was sold sometime toward the end of 2004.¹⁴

¹⁴We note that the partnerships introduced site visit logs allegedly compiled by Johnny Johnson, an RTC employee, who allegedly observed collection of LFG until October 6, 2006. Johnny Johnson did not testify at trial. The only person who testified at trial to verify information in the site visit logs was Mr. Connolly, and his testimony was inconsistent with an earlier affidavit he submitted on December 4, 2007, in the case of *Banco Panamericano, Inc. v. Consortium Serv. Mgmt. Grp., Inc.*, No. 1:07cv15 (N.D. Ill. Sept. 18, 2009), and introduced into evidence in this case as Ex-

Chiplease, Scattered, and the chapter 7 trustee did not seek to assume and assign the GRA, the GSA, and the O&M relating to Chastang according to the March 16, 2006, bankruptcy court order approving the settlement between the RTC estate and Chiplease and Scattered, among others.

5. *Columbus*

Sometime in 1998 RTC installed over 40 wells at the Columbus landfill, some of them connected to a header pipe, without a Georgia Environmental Protection Division permit. That turned out to be insufficient to meet the Georgia Environmental Protection Division standards, so the City of Columbus eventually hired a consultant to redesign the gas collection system for the Columbus landfill and a contractor to build it. The City of Columbus installed a flare system at Columbus in 1999.

The City of Columbus attempted to terminate the LLA with RTC in 2003, but the bankruptcy court denied the motion. The City of Columbus never received any royalties under the LLA.

6. *Elliott*

On October 23, 2001, the bankruptcy court entered an agreed order that authorized RTC, as debtor-in-possession, to assume the Elliott LLA, subject to certain conditions. On November 9, 2006, the bankruptcy court denied the chapter 7 trustee's motion to assume the Elliott LLA and assign it to Chiplease after a trial. The District Court affirmed the bankruptcy court's findings in an opinion dated June 26, 2007.

7. *Fort Dodge*

The installation of the gas well system at the Fort Dodge landfill was authorized by the State of Iowa only on June 24, 1998. RTC installed plastic well casings, but the record is inconclusive on whether RTC did anything else at the landfill.

8. *Gary*

By June 30, 1998, the Gary landfill had 25 wells in the interior of the landfill and eight exterior gas collection wells.

hibit 540–J. We find an affidavit filed in 2007 more reliable than Mr. Connolly's testimony at trial in 2015.

The exterior wells were connected to a header pipe, a blower, and a utility flare. The 25 interior wells were not connected to the same system as the exterior wells. The blower and the utility flare stopped operating in 2000. In the same year all the wells were equipped with passive well head flares.

On May 8, 2001, the bankruptcy court entered an agreed order signed by counsel for both RTC and the City of Gary granting RTC's motion to assume the Gary LLA. The order required RTC to submit plans for the completion of the gas maintenance, collection, and monitoring system at Gary.

9. *GNOL*

In April 1998 the State of Louisiana Department of Environmental Quality (LADEQ) issued a variance for the purpose of conducting flow tests for the gas recovery system at GNOL. However, LADEQ approved a Part 70 Operating Permit for the GNOL landfill only on May 25, 1999. Mr. Connolly maintained at trial that RTC had installed a header system at GNOL before June 30, 1998, and that RTC had also installed well head flares on the majority of wells. However, an inspection by the Enforcement Division in April 2003 revealed that at that time there were still no header and flare systems for utility gas flares as specified in the operating permit. According to the report, the facility failed to obtain a permit modification before installing portable flares and maintaining a continuous flame on the portable flares. The memorandum to file prepared by the Enforcement Division further revealed that RTC stopped all work on the project in mid-1999 on account of bankruptcy.

10. *Lansing*

In 1996 a permit application was submitted to the IEPA for the installation of a landfill gas collection system and gas-to-electricity facility, but it is not clear whether or when it was approved. The IEPA granted a permit for the construction and operation of a utility flare and gas condensate tank at the Lansing landfill on August 9, 2000.

On February 21, 1996, RTC entered into a power purchase agreement with Commonwealth Edison Co. (ComEd) for Lansing. ComEd did not purchase any electricity produced from the Lansing gas-to-energy facility in 2005–07.

11. *Rosencranse*

The record is inconclusive on what structures existed at the Rosencranse landfill before June 30, 1998. Mr. Connolly maintained at trial that RTC connected 30 preexisting vertical wells to the header system before June 30, 1998. However, this statement is inconsistent with trial testimony of Arthur Daniels, the president of Rosencranse Corp., the landfill owner. Mr. Daniels explained that RTC assisted only with design and filing permit applications for the landfill. Rosencranse Corp. had to hire contractors to install the collection system and a flare in the first half of 2003. Mr. Daniels did not recall whether RTC or Green Gas employees had access to Rosencranse, which was fenced and locked in 2005–07, or had ever talked to any landfill employees.

On March 24, 2005, the bankruptcy court issued an order denying the chapter 11 trustee’s motion in the RTC bankruptcy proceedings to assume the LLA between RTC and Rosencranse Corp. On June 29, 2006, the bankruptcy court issued an order denying the motion of Chiplease and Scattered to compel the chapter 7 trustee to seek assumption and assignment of the LLA between RTC and Rosencranse Corp.

Rosencranse Corp. never received any royalties under the LLA with RTC.

12. *Taylor Ridge*

By June 30, 1998, RTC had installed over 80 wells, some of them connected with header pipes, and a vent. In 2000 the vent was replaced by a blower station and a flare, with 40 wells connected to the blower station and the flare. However, there was not sufficient methane content to keep the flare burning constantly. Approximately 90% of the landfill gas emitted was passively vented, and the remaining 10% was burned through the flare. RTC trained employees of the landfill management company to relight the flare so that RTC employees did not have to continually revisit the site for that purpose.

13. *Viola*

RTC drilled at most six wells at Viola. There is no conclusive evidence on the record as to when exactly the wells were drilled or connected to the header pipe. The partnerships produced receipts showing that the materials for the wells were

delivered on site sometime in the middle of June 1998. They also provided receipts from the drilling company for work done on site in early June 1998. However, besides these documents and the partnerships' witnesses' self-serving testimony, there is no evidence that allows us to conclusively establish what equipment was present at Viola as of June 30, 1998.

14. *Facts Common to Clarion, Wheatland, Wyandot, and Pontiac*

On January 18, 2002, the bankruptcy court approved the motion of RTC to assume the LLA with Allied Waste Management, Inc. (Allied), relating to the Pontiac landfill (Allied LLA). The bankruptcy court reserved the rights of both parties as to Clarion, Wheatland, and Wyandot. The Allied LLA was set to expire on November 21, 2005. The chapter 7 trustee of the RTC bankruptcy estate and Allied agreed to extend the November 21, 2005, deadline for an election to renew the Allied LLA as to the Pontiac landfill only until December 31, 2005. The parties failed to exchange the renewal notices by that time.

On November 30, 2005, the bankruptcy court entered an order, agreed to by the chapter 7 trustee and Allied, extending the trustee's time to renew or reject all portions of the Allied LLA. The text of that order acknowledged Allied's position that all but the Pontiac portion of the Allied LLA had already terminated, and preserved Allied's right to so assert in future proceedings. *See Chiplease, Inc. v. Steinberg (In re Res. Tech. Corp.)*, 528 F.3d 467, 469 (7th Cir. 2008).

On June 13, 2006, the bankruptcy court ruled that its prior orders extending the time to assume or reject the Allied LLA did not by themselves constitute an extension of the contract period and that the Allied LLA had expired with respect to the Clarion, Wheatland, Pontiac, and Wyandot landfills. On June 29, 2006, the bankruptcy court entered an order allowing RTC's trustee to not assume the Allied LLA. The U.S. District Court for the Northern District of Illinois in an opinion affirming the June 29, 2006, order confirmed that the LLA with Allied expired on December 31, 2005, and accordingly could not be assumed. *See In re Res. Tech. Corp.*, 2007 WL 898423 (N.D. Ill. March 20, 2007), *aff'd*, 528 F.3d 467 (7th Cir. 2008), *cert. denied*, 555 U.S. 1046 (2008).

In 2008 the rights under Allied LLA were the subject of a subsequent contract breach dispute between successors-in-interest of RTC, including Scattered, and the landfill owner, Allied. The litigation resulted in a settlement dated August 29, 2011, which covered the rights to the Clarion, Pontiac, Wheatland, and Wyandot landfills.

15. *Congress*

Congress Development Co. made several attempts to terminate the LLA with RTC beginning as early as October 1999. These attempts culminated in obtaining relief from the automatic stay in the bankruptcy proceeding and terminating the Congress LLA by written notice to the RTC chapter 7 trustee. Accordingly, on February 7, 2006, the RTC chapter 7 trustee rejected the Congress LLA with the bankruptcy court's approval. On March 2, 2006, the District Court affirmed the order.

The Congress LLA subsequently was a part of the litigation between Allied, the new owner of Congress, and several other landfills in question,¹⁵ RTC, and the estate trustees both in the RTC bankruptcy proceedings and in Illinois State courts (Allied litigation). The Allied litigation resulted in a settlement on August 29, 2011. The partnerships were not parties to the settlement.

With respect to operating the equipment at Congress, the bankruptcy court allowed the RTC trustee to abandon the estate's interest in the IEPA permits related to the Congress landfill on January 26, 2006. On February 7, 2006, the bankruptcy court approved the sale of the gas-to-energy equipment at Congress, together with all books and records pertaining to said equipment, spare parts, and other items related to said equipment. On the same date, the bankruptcy court approved the rejection by the RTC estate of all contracts for maintenance of equipment and all extraction of gas leases related to Congress.

16. *Lyons/McCook*

The chapter 7 trustee breached the Lyons/McCook LLA by failing to pay to American Grading Co., the landfill owner,

¹⁵ Other landfills bought by Allied and part of the Allied litigation were Clarion, Pontiac, Wheatland, and Wyandot, as well as Springfield, Bloomington, and Litchfield.

the advance royalty that was due on January 1, 2006. In March 2006, after the chapter 7 trustee entered into a settlement with the Greenblatt entities, he abandoned the IEPA operating permit previously issued to RTC for operations at the Lyons/McCook landfill.

On July 7, 2006, at the request of Illinois Investment Trust (IIT), the chapter 7 trustee filed a motion for entry of an order compelling RTC's estate to assume the Lyons/McCook LLA. During the pendency of the motion, American Grading Co., the landfill owner, issued two more notices of default to the chapter 7 trustee, and on January 31, 2007, it issued a notice of termination of the LLA.

On April 17, 2007, after a trial, the bankruptcy court denied a motion filed by the chapter 7 trustee to assume the Lyons/McCook LLA between RTC and American Grading Co. and assign it to IIT because the agreement had terminated on account of an uncured default, nonpayment of advance royalties. On November 19, 2007, the District Court affirmed the bankruptcy court's order in an unpublished memorandum opinion and order. The District Court noted in its opinion that the Lyons/McCook LLA terminated on January 31, 2007, on account of the nonpayment by the RTC estate of a \$100,000 royalty. The Court of Appeals for the Seventh Circuit affirmed the District Court's judgment on April 8, 2009. *Ill. Inv. Tr. No. 92-7163 v. Am. Grading Co.*, 562 F.3d 824 (7th Cir. 2009).

17. *Pontiac*

On April 10, 2002, Allied entered into a credit agreement with RTC to secure financing through Aquila for the facility at the Pontiac landfill. On the same date, Allied entered into a consent and agreement (consent agreement) with Aquila, consenting to the granting by RTC of security interests to Aquila to protect Aquila's rights under the credit agreement.

On December 28, 2005, Scattered acquired all Aquila's rights, title, and interest against all claims against RTC acquired under the postpetition financing arrangement described above, including Aquila's rights under the consent agreement. Scattered filed a notice of transfer of claim in the RTC bankruptcy proceeding. On June 14, 2006, Solar, the company which operated the gas-to-energy facility at Pontiac, instructed its employees to stop the facility. On or about

June 16, 2006, Solar removed all of its assets and equipment from Pontiac. ComEd purchased electricity produced at the Pontiac gas-to-energy facility up until June 13, 2006.

On June 27, 2008, Scattered made a written demand that Allied enter into a replacement project agreement with Scattered or its designee pursuant to the consent agreement. On July 16, 2008, Allied wrote back to Scattered refusing to do so.

On October 14, 2008, Scattered filed a breach of contract action in the Circuit Court of Cook County, Illinois. Scattered alleged that Allied was required to enter into a new project agreement with Scattered. On August 26, 2009, the circuit court granted Allied's motion to dismiss. The appeal of that order resulted in the settlement dated August 29, 2011, which covered the rights to the Clarion, Pontiac, Wheatland, and Wyandot landfills.

18. *Wheatland*

As of October 1998, there was one flare at the Wheatland landfill. The Kansas Department of Health and Environment granted an air quality construction approval on December 3, 1998. The Kansas Department of Health and Environment granted an air quality construction permit for the installation of a gas flare at Wheatland landfill on April 21, 2004. The air quality construction approval granted approval to expand the Wheatland landfill. Once the expansion was completed, a separate approval for installation of a gas collection and control system would be required.

V. *The Partnerships' Expenses*

A. *Green Gas' Expenses*

Respondent disallowed deductions for the following types of expenses allegedly incurred by Green Gas and claimed on 2006 and 2007 Federal tax returns: operations and maintenance expenses under the O&M with RTC, consulting fees, legal and professional fees, and some other expenses. Respondent did not challenge Green Gas' expense deductions for 2005. For the 2006 and 2007 tax years Green Gas did not claim deductions for any lease payments to RTC under GRAs for the landfills in question. The partnerships explained that Green Gas capitalized such expenditures as investments in landfill gas for both financial accounting and tax purposes.

Green Gas claimed on its tax returns deductions for operations and maintenance expenses under the O&M agreements with RTC of \$629,400 for 2006 and \$469,800 for 2007. Between August 22 and November 16, 2006, Green Gas wrote 15 checks to Chiplease totaling \$1,043,000. Green Gas did not make any payments to RTC under the O&M agreements. The partnerships explained that because of the netting scheme and the provisions of the DIP loan, Green Gas paid directly to Chiplease any amounts due to RTC.

For 2006 and 2007 Green Gas deducted \$19,800 and \$75,062, respectively, for consulting fees. The partnerships alleged that they had oral consulting agreements with two firms: Fortuna Asset Advisors and Archimedes Financial Corp. Mr. Nichols explained that Green Gas paid consultants to find money for RTC projects. For example, in 2002 consultants helped to negotiate the Aquila deal for Pontiac's facility refinancing. Green Gas did not introduce into evidence any written agreements, invoices, written reports for the work done, or any other written evidence that would support the finding that legitimate consulting contracts existed.

Green Gas did not pay directly for the consulting services allegedly provided by Fortuna Asset Advisors and Archimedes Financial Corp. Instead, in 2006 Methane Bio, LLC, an upper-level partnership and Green Gas' tax matters partner, made a series of payments to the consulting companies totaling \$19,800. Chiplease wrote a check for \$36,000 to Archimedes Financial Corp. in 2007.

Green Gas deducted \$557,753 for 2006 and \$680,213 for 2007 for legal and professional fees for services allegedly provided to Green Gas by Chuhak & Tecson, P.C. (Chuhak), a prominent Chicago law firm that represented the partnerships during the years at issue. Chuhak solicited investors for the partnerships and prepared their tax returns.

Mr. Nichols explained at trial that during the years at issue Green Gas and Chuhak had an informal netting arrangement when Chuhak would collect alleged fees for its services directly from its clients who invested in upper-level partnerships and remitted the remaining amounts to various partnerships which held stakes in Green Gas. On average, Chuhak retained about 50% of the alleged investments. Chuhak sent the checks to the upper-level partnerships along with a letter explaining how the funds were applied.

Green Gas did not receive any bills or invoices from Chuhak during 2006 and 2007. The letters from Gary Stern, one of Chuhak's lawyers, to Mr. Nichols discussed only transmittal of checks representing "contributions" of investors to upper-level partnerships and the amount Chuhak retained as its "fees". Some of the letters sent in 2007 referenced "sales" of section 45K tax credits.¹⁶

Green Gas deducted the following miscellaneous expenses for 2006 and 2007:

<i>Expense</i>	<i>2006</i>	<i>2007</i>
Bank & wire fees	\$64	\$145
Annual report fees	1,000	1,754
Management & accounting	62,000	69,600
Trustee's fees	90,000	90,000

Respondent conceded the bank and wire fees for 2006 for full and for 2007 to the extent of \$112, the amount reflected in Green Gas' bank statements in evidence for 2007. Green Gas' expense report for 2007 reflected bank and wire fees of \$144.95 for 2007.

To substantiate the annual report fees deductions, Green Gas introduced into evidence checks written by Green Gas to the Delaware secretary of state in 2006 totaling \$1,000 and in 2007 totaling \$1,154.

With respect to the management and accounting fees paid to Scattered in 2006 and 2007, Mr. Nichols explained that pursuant to an oral agreement, Green Gas paid Scattered for a shared office space and services arrangement, which included two employees who worked at two of the landfills. To substantiate the expenses, the partnerships introduced checks and/or bank statements showing payments from

¹⁶ For example, one of the letters from Mr. Stern to Mr. Nichols, dated August 13, 2007, states:

With this additional investment, we have "sold" an aggregate amount of \$1,000,000.00 of [sec.] 45K tax credits for an aggregate amount of \$695,000.00 of capital contributions (with respect to aggregate investments by GJS Gas General Partnership in Adios Gas General Partnership).

Subject to further discussions with you (including without limitation, based on availability subject to other investors and our estimate of the "year 2007 phase-out percentage amount"), we have completed our "sale" of [sec.] 45K tax credits in year 2007.

Green Gas to Scattered of \$31,000 in 2006 and \$40,600 in 2007. Mr. Nichols explained that the upper-level partnerships paid some of the fees for Green Gas, depending on which entity had the money at the time. There is no evidence of written arrangements between Green Gas and the upper-level partnerships as to this arrangement.

Finally, Green Gas claimed a deduction for trustee's fees of \$90,000 for each of the 2006 and 2007 tax years paid to DG&E at a monthly rate of \$7,500. The partnerships failed to produce any written agreements between Green Gas and DG&E on this issue. To substantiate the expenses, the partnerships introduced checks showing payments from Green Gas to DG&E of \$15,500 in 2006 and \$32,400 in 2007. Mr. Nichols explained that the upper-level partnerships paid some of the fees for Green Gas, depending on which entity had the money at the time. The upper-level partnerships' payments totaled \$32,000 in 2006 and \$39,500 in 2007. There is no evidence of a written arrangement between Green Gas and the upper-level partnerships as to this arrangement.

B. Pontiac Trust's Expenses

Respondent disallowed a deduction for operations and maintenance expenses Pontiac Trust allegedly incurred under the O&M agreement with RTC. Respondent disallowed a deduction of \$328,800 for each of the 2006 and 2007 tax years because of the lack of formal netting agreements between RTC and Pontiac Trust. As a result of netting, if Pontiac Trust ended up owing any amounts to RTC, it paid those amounts directly to Aquila or Scattered under the terms of the Aquila DIP loan.

In addition, respondent disallowed deductions related to lease expenses for the Pontiac landfill for the 2006 and 2007 tax years because respondent concluded that no GRA was in effect with respect to Pontiac in the 2006 or 2007 tax year.

VI. Preparation of the Partnerships' Tax Returns

A. Calculation of FNS Credits

To calculate the amount of FNS credits, the partnerships had to determine the barrel-of-oil equivalent of the qualified fuel produced and sold. They employed the following formula to make that determination. First, they calculated the

number of cubic feet of LFG emitted per month. The rate of landfill gas emissions, in cfm, was multiplied by 60 minutes per hour, 24 hours per day, and the number of days in a given month.

Second, the partnerships calculated the number of mmBTUs in the generated LFG. They multiplied the number of monthly LFG cubic feet by the number of mmBTUs per cubic foot of LFG. The partnerships typically assumed 500–550 mmBTUs per cubic foot,¹⁷ unless a precise measurement of methane content was available.

Third, the partnerships determined the barrel-of-oil equivalent by dividing the number of mmBTUs from the previous step by the number of mmBTUs in a barrel of oil (5.8).

Sometimes the partnerships determined mmBTUs by converting kilowatt-hours produced and consumed by electric generation plants by multiplying kilowatt-hours produced and consumed by a heat rate (typically 13,000–14,000 BTUs/kilowatt-hour) and adding kilowatt-hours used for “parasitic” load (what the plant consumes to generate electricity).

For the Congress and Pontiac landfills, which had solar turbine plants, solar turbine used a gas chromatograph or similar equipment and turbine fuel meters to calculate mmBTUs consumed by the turbines.

The partnerships then used the barrel-of-oil equivalent obtained through the calculations described above to calculate FNS credits using the formula described in the statute. The partnerships provided Chuhak with the worksheets to prepare their tax returns for the years at issue.

B. Professional Advice Regarding Transactions and Tax Returns at Issue

The partnerships claimed that they relied on the advice of their tax counsel at the time, Chuhak, to design their ownership structures, structure tax credit transactions, and prepare tax returns. The partnerships, however, did not introduce testimony of any Chuhak lawyers on any of these issues. Nor did they introduce into evidence any opinion letters, memoranda, or other communications drafted by their

¹⁷ Roughly one-half of pure methane.

tax counsel and addressed to them relating to the transactions at issue or their entitlement to FNS credits.

C. Tax Return Filing

The Internal Revenue Service (IRS) received Green Gas' 2005, 2006, and 2007 Forms 1065, U.S. Return of Partnership Income, on April 17, 2006, April 17, 2007, and June 30, 2008, respectively. The IRS received Pontiac Trust's Forms 1065 for 2006 and 2007 on April 17, 2007, and June 30, 2008, respectively.

Green Gas claimed FNS credits for 2005, 2006, and 2007 with respect to 23 landfills. Pontiac Trust claimed FNS credits for 2006 and 2007 for one landfill, Pontiac.

VII. Respondent's Examination of the Partnerships' Tax Returns

During the course of the examination of the partnerships' tax returns, respondent issued several Information Document Requests (IDRs) to Green Gas and Pontiac Trust with respect to their 2006 and 2007 tax years.¹⁸ On January 15, 2010, respondent's representative met with an attorney from Chuhak to review the documents produced by the partnerships in response to the IDRs. Although Mr. Nichols claims he instructed Chuhak to provide "any and all material that was responsive to the IDRs", the partnerships did not produce any accounting records, calculations of FNS credits, or documentation substantiating the expenses reported on their tax returns for 2006 and 2007. Nor did they provide respondent's agents with complete documentation related to the landfills in question, including the agreements between RTC and the partnerships. These documents were produced only at the pretrial stage.

Respondent issued an FPAA to Green Gas for 2005 on August 20, 2009. Respondent issued an FPAA to Green Gas for 2006 and 2007 on March 26, 2010. Respondent issued FPAA's to Pontiac for 2006 and 2007 on March 17, 2010. The following table summarizes the amount of FNS credits Green Gas claimed with respect to each landfill and the amount of FNS credits respondent allowed:

¹⁸ Respondent did not issue any Information Document Requests to Green Gas for 2005.

<i>Landfill</i>	<i>Credits claimed for 2005</i>	<i>Credits allowed for 2005</i>	<i>Credits claimed for 2006</i>	<i>Credits allowed for 2006</i>	<i>Credits claimed for 2007</i>	<i>Credits allowed for 2007</i>
Beecher	\$118,933	-0-	Not claimed	N/A	Not claimed	N/A
Bi-State	36,919	-0-	\$25,933	-0-	\$25,881	-0-
Bloomington	36,919	-0-	25,664	-0-	13,027	-0-
Chastang	379,738	-0-	204,959	-0-	-0-	-0-
Clarion	676,846	-0-	470,503	-0-	240,406	-0-
Columbus	184,594	-0-	129,184	-0-	54,069	-0-
Congress	462,510	\$159,007	349,368	\$2,455	387,662	-0-
Elliott	584,549	-0-	406,343	-0-	210,679	-0-
Fort Dodge	203,054	-0-	141,151	-0-	64,703	-0-
Gary	369,189	-0-	267,170	-0-	130,683	-0-
GNOL	332,270	-0-	230,974	-0-	113,878	-0-
Kewanee	36,919	-0-	25,664	-0-	16,605	-0-
Lansing	113,833	-0-	79,130	-0-	50,898	-0-
Litchfield	138,446	-0-	93,148	-0-	51,575	-0-
Lyons/McCook	188,190	92,723	123,186	-0-	62,584	-0-
New Haven	110,757	-0-	76,991	-0-	37,557	-0-
Peoria	220,236	197,672	142,531	95,880	68,900	\$36,963
Rosencranse	127,392	-0-	94,101	-0-	38,630	-0-
Springfield	69,436	959	54,342	-0-	25,087	-0-
Taylor Ridge	438,309	-0-	316,376	-0-	143,396	-0-
Viola	76,914	-0-	53,466	-0-	25,069	-0-
Wheatland	246,126	-0-	171,092	-0-	86,847	-0-
Wyandot	246,126	-0-	171,092	-0-	88,989	-0-
Total	5,398,205	450,361	3,652,368	98,335	1,937,125	36,963

Pontiac Trust claimed FNS credits of \$508,585 and \$269,597, respectively, for LFG allegedly produced at the Pontiac landfill and sold during 2006 and 2007. Respondent disallowed all of the FNS credits claimed for both years.

In addition, respondent disallowed deductions for various business expenses for both Green Gas and Pontiac Trust for the 2006 and 2007 tax years.

VIII. *Trial of These Cases*

A trial of these cases was held in Chicago, Illinois, on November 16–20 and 23, 2015. Two expert witnesses and ten fact witnesses testified at trial.

The partnerships offered Neil D. Williams as an expert in the areas of LFG, LFG collection systems, and the LFG collection industry, and the Court recognized Dr. Williams as an expert in these areas. Respondent offered Craig Benson as an expert in the field of LFG, and the Court recognized Dr. Benson as an expert in that area.

Both experts submitted written expert reports and rebuttal reports to the Court. The Court, with prior agreement of the parties, directed the expert witnesses to testify concurrently. The procedure was implemented in substantially the same way as in *Rovakat, LLC v. Commissioner*, T.C. Memo. 2011–225, 2011 WL 4374589, at *12, *aff'd*, 529 F. App'x (3d Cir.

2013). We describe more fully in the opinion portion the benefits of the concurrent testimony and the impact on our analysis.

OPINION

We humans believe in miracles. For many centuries, we tried to find the keys to eternal life, youth, and wealth. Some of these endeavors resulted in the advancement of medicine and development of the sciences. The others have only left a brief trace in folklore.

During the Middle Ages the search for wealth, in particular, resulted in numerous attempts to turn various substances into gold through alchemy. Although such experiments have proven to be futile in the past, we still observe brave men and women undertaking to turn something into gold today. Instead of alchemy, however, tax law is one of the most popular tools for that purpose.

These consolidated cases represent an attempt to turn gas allegedly produced from landfills into gold by means of applying provisions giving tax credits meant by Congress to encourage tapping into new energy sources. The partnerships were involved in an intricate scheme that consisted of numerous entities and contractual arrangements designed to turn gas derived from decomposition of municipal waste into gold.¹⁹ The result, as we explain in this Opinion, is in line with previous similar attempts.

I. Burden of Proof

In addition to the issues raised in the parties' opening briefs, we need to resolve a pending motion to shift the burden of proof filed by the partnerships on October 2, 2015. Respondent filed a response on October 13, 2015.²⁰

The partnerships argue that the burden of proof in these cases should be shifted to respondent pursuant to section 7491(a). Respondent argues that the partnerships have not

¹⁹Mr. Nichols in his testimony elegantly named the scheme "monetization of tax credits".

²⁰By order of the Court dated October 27, 2015, we have previously granted the partnerships' motion to shift to respondent the burden of proof with respect to the sham transaction theory under Rule 142(a) as a new matter.

introduced credible evidence, did not comply with record-keeping and substantiation requirements, did not cooperate with reasonable requests by respondent for witnesses, information, documents, meetings, and interviews,²¹ and have not shown that the requirements of section 7430(c)(4)(A)(ii) are satisfied. The parties presented their arguments to the Court at trial and by filing supplemental briefs. By agreement of the parties, the partnerships presented their evidence first during the proceedings.

The Commissioner's determinations in a notice of deficiency or an FPAA are generally presumed to be correct, and the taxpayer bears the burden of proving by a preponderance of the evidence that the determinations are incorrect.²² See Rule 142(a); *Welch v. Helvering*, 290 U.S. 111, 115 (1933). Pursuant to section 7491(a)(1), the burden of proof may shift to the Commissioner with respect to factual matters if the taxpayer meets certain requirements. However, a burden shift under section 7491(a) has significance only in the rare event of an evidentiary tie. See, e.g., *Blodgett v. Commissioner*, 394 F.3d 1030, 1039 (8th Cir. 2005), *aff'g* T.C. Memo. 2003-212. Where the standard of proof is preponderance of the evidence, we may decide the case on the weight of the evidence and not on an allocation of the burden of proof. *Knudsen v. Commissioner*, 131 T.C. 185, 189 (2008).

The partnerships failed to satisfy the requirements of section 7491(a). As will be shown, the evidence they introduced at trial did not rise to the level of "credible" with respect to the issues presented. There is no evidentiary tie. In addition, they failed to cooperate with respondent during the audit pertaining to the 2006 and 2007 tax years. For these reasons, their motion to shift the burden of proof under section 7491(a) will be denied. An appropriate order will be issued.

II. Appellate Venue

The parties disagree as to the proper appellate venue for these cases. The partnerships argue that the proper venue would be the U.S. Court of Appeals for the District of

²¹The parties, however, stipulated that Green Gas met this requirement for 2005.

²²We discuss the issue of burden of proof allocation with respect to penalties separately in part VI of this Opinion.

Columbia Circuit because as of the dates of the filing of the petitions, they no longer operated as businesses. Respondent argues that the proper venue would be the U.S. Court of Appeals for the Seventh Circuit because both Green Gas and Pontiac Trust had their main places of business in Chicago, Illinois, during the relevant years.²³

Section 7482(b) provides rules for determining the proper venue for appealing this Court's decisions. Rule 190(c). In the case of a petition under section 6226, 6228(a), 6247, or 6252, the proper venue for appeals is the Court of Appeals for the circuit in which a partnership has its principal place of business. Sec. 7482(b)(1)(E). We determine the principal place of business as of the time the petition seeking readjustment of tax liability was filed with the Court. Sec. 7482(b). If none of the circumstances enumerated in section 7482(b) applies, the venue is the Court of Appeals for the District of Columbia Circuit. *Id.*

The determination of proper appellate venue of our decisions matters only in narrow circumstances when the resolution of this issue dictates how we should apply the law. *See CNT Invs., LLC v. Commissioner*, 144 T.C. 161, 183 (2015) (citing *Brewin v. Commissioner*, 72 T.C. 1055, 1059 (1979), *rev'd and remanded on other grounds*, 639 F.2d 805 (D.C. Cir. 1981)). One of such circumstances is when the parties invoke the *Golsen* rule, by which this Court "follow[s] a Court of Appeals decision which is squarely in point where appeal from our decision lies to that Court of Appeals and to that court alone." *Golsen v. Commissioner*, 54 T.C. 742, 757 (1970), *aff'd*, 445 F.2d 985 (10th Cir. 1971); *see CNT Invs., LLC v. Commissioner*, 144 T.C. at 183.

None of the parties here invoked the *Golsen* rule in their briefs or at trial. The parties also did not argue that the determination of the proper appellate venue may influence how we apply the law in these cases. Thus, we will be applying the same legal principles to the issues in these cases whether the venue for appeal is the Court of Appeals for the District of Columbia Circuit, the Third Circuit, or the

²³At trial, respondent's counsel also urged us to look at the place of business of the first-tier partners of the partnerships to determine the partnerships' place of business for the purpose of appellate venue. We decline to consider this argument in the light of our discussion of this issue.

Seventh Circuit. As this Court has previously held: “For us to undertake to resolve the correct appellate venue, inasmuch as it would not affect the disposition of this case, ‘would, at best, amount to rendering an advisory opinion. This we decline to do.’” *CNT Invs., LLC v. Commissioner*, 144 T.C. at 185 (quoting *Greene-Thapedi v. Commissioner*, 126 T.C. 1, 13 (2006)).

III. *FNS Credits*

A. *Fact and Expert Witnesses*

Before turning to substantive issues at hand, we would like to address our perception of the trial witnesses. As we have previously stated in *Neonatology Assocs., P.A. v. Commissioner*, 115 T.C. 43, 84 (2000), *aff’d*, 299 F.3d 221 (3d Cir. 2002):

We observe the candor, sincerity, and demeanor of each witness in order to evaluate his or her testimony and assign it weight for the primary purpose of finding disputed facts. We determine the credibility of each witness, weigh each piece of evidence, draw appropriate inferences, and choose between conflicting inferences in finding the facts of a case. The mere fact that one party presents unopposed testimony on his or her behalf does not necessarily mean that the elicited testimony will result in a finding of fact in that party’s favor. We will not accept the testimony of witnesses at face value if we find that the outward appearance of the facts in their totality conveys an impression contrary to the spoken word.
* * *

The partnerships called three fact witnesses and one expert witness. Their fact witnesses were Mr. Connolly, Mr. Nichols, and Revenue Agent (RA) Jeane Lane. Both Mr. Connolly and Mr. Nichols were closely involved in RTC and the partnerships’ operations and were officers and members of the boards of directors of various entities involved in the transactions at issue. Their testimony helped to clarify some factual issues, such as the ownership structure of the partnerships, financing arrangements, and the general timeline of events. On the whole, however, that testimony was not disinterested and not entirely credible. We give it appropriate weight in our deliberations. The partnerships also called RA Lane to elicit testimony related to respondent’s audit.

Respondent called eight fact witnesses and one expert witness. Respondent’s fact witnesses were RA Lane, James

Watts, James DeSmidt, Mr. Daniels, Dell Caldwell, Rufus Riggs, Mr. Szilagyi, and Mr. Steinberg. Messrs. Watts, DeSmidt, Daniels, Caldwell, and Riggs were involved with companies which owned some of the landfills in question. Their testimony was credible and helpful to determine certain issues related to individual landfills. Mr. Szilagyi and Mr. Steinberg were bankruptcy trustees of the RTC estate. As trustees, they were closely familiar with the operations of the RTC estate during the years at issue and had some degree of familiarity with RTC's arrangements with the partnerships.

Both the partnerships' and respondent's expert witnesses, Dr. Williams and Dr. Benson, had impressive credentials and experience related to the LFG industry. We found the testimony of both expert witnesses helpful despite the fact that, because of Court Rules and the pretrial schedule, both experts submitted their expert reports without having all the necessary information provided to them. In part, this was so because of the partnerships' changing counsel several times in preparation for trial, and we appreciate the scope of the undertaking their trial counsel had to accept.

We have used concurrent witness testimony in several prior cases and found it beneficial. *See, e.g., Buyuk, LLC v. Commissioner*, T.C. Memo. 2013-253; *Crimi v. Commissioner*, T.C. Memo. 2013-51, at *41; *Rovakat, LLC v. Commissioner*, T.C. Memo. 2011-225. Concurrent witness testimony may be especially helpful in cases such as these, involving technical issues related to a relatively new industry.

It is well established that we have broad discretion to evaluate an expert's analysis, including the authority to embrace or reject an expert's opinion in toto or to pick and choose the portions of the opinion to adopt. *See Neonatology Assocs., P.A. v. Commissioner*, 115 T.C. at 85. Expert witnesses in these cases started off with very different, sometimes diametrically opposing, views on many crucial issues, such as what "fuel" is, what constitutes a "production facility" in the LFG industry, and many other technical questions. Concurrent witness testimony allowed Dr. Williams and Dr. Benson to openly discuss these differences and bring their positions closer together. For example, both experts agreed that there is no commercial market for vented or

flared gas. Concurrent witness testimony also enabled us to expedite our decisionmaking process by more easily separating the reliable portions of the expert reports from the unreliable. We will discuss expert testimony in more detail in the relevant parts of this Opinion.

B. Overview of Statutory Framework

1. Statutory Construction Generally

We construe statutes so as to give effect to the plain meaning of the words in the text unless we find that a word's plain meaning is ambiguous. *United States v. Am. Trucking Ass'ns, Inc.*, 310 U.S. 534, 543–544 (1940); *Venture Funding, Ltd. v. Commissioner*, 110 T.C. 236, 241–242 (1998), *aff'd without published opinion*, 198 F.3d 248 (6th Cir. 1999); *Rath v. Commissioner*, 101 T.C. 196, 200–201 (1993). We reference the legislative history primarily to learn the purpose of the statute and to resolve any ambiguity in the words in the text. *Commissioner v. Soliman*, 506 U.S. 168, 174 (1993); *Trans City Life Ins. Co. v. Commissioner*, 106 T.C. 274, 299 (1996). If the text of a statute is clear and unambiguous on its face, “we require unequivocal evidence of legislative purpose before construing the statute so as to override the plain meaning of the words used therein.” *Rath v. Commissioner*, 101 T.C. at 200–201 (citing *Halpern v. Commissioner*, 96 T.C. 895, 899 (1991), and *Huntsberry v. Commissioner*, 83 T.C. 742, 747–748 (1984)). Because the parties in these cases dispute the meaning of almost every word in section 45K, we will look at both the plain language of the statute and its legislative history. This Court found such inquiry helpful in two earlier cases discussing section 45K. *See S/V Drilling Partners v. Commissioner*, 114 T.C. 83 (2000); *Nielsen-True P'ship v. Commissioner*, 109 T.C. 112 (1997), *aff'd sub nom. True Oil Co. v. Commissioner*, 170 F.3d 1294 (10th Cir. 1999).

2. Section 45K

Section 45K(a) provides that an FNS credit is available in an amount equal to \$3 multiplied by the barrel-of-oil equivalent of qualified fuels that are sold by the taxpayer to an unrelated person during the taxable year, the production of which is attributable to the taxpayer. Persons are treated as related to each other if they would be treated as a single

employer under the regulations prescribed under section 52(b). Sec. 45K(d)(7). The term “qualified fuel” includes gas produced from biomass. Sec. 45K(c)(1)(B)(ii). “Biomass” for purposes of section 45K means any organic material other than oil, natural gas, and coal (including lignite) or any product thereof. Sec. 45K(c)(3). To be eligible for the credit, “qualified fuel” must be produced at a facility placed in service before July 1, 1998, and sold before January 1, 2008. Sec. 45K(e) and (f). The Secretary did not issue any regulations to clarify these definitions or provide more guidance on this section of the Code.

3. *Legislative History*

In 1980, as part of the Crude Oil Windfall Profit Tax Act of 1980, Pub. L. No. 96–223, sec. 231, 94 Stat. at 268, Congress created a Federal tax credit for the production and sale of energy from nonconventional sources. Among the reasons for enacting the Crude Oil Windfall Profit Tax Act, the Senate Committee on Finance cited “the nation’s continuing overdependence on imported energy.” S. Rept. No. 96–394, at 6 (1979), 1980–3 C.B. 131, 142. The Senate Committee on Finance recognized that

[t]he ultimate solution to the energy problem does not lie in taxing energy producers or simply in helping people cope with higher prices; it lies in reducing our consumption of energy and in increasing domestic energy production. A very important part of the committee substitute is a program of tax incentives designed to achieve these goals.

Many methods of energy conservation and of production of alternate energy sources require new and advanced technologies. * * *

For this reason, the committee substitute uses a large part of the revenue from the windfall profit tax to finance tax incentives for a wide range of alternate sources of energy—solar, wind, geothermal, wood, biomass, hydroelectric, ocean thermal, oil shale, tar sands, coal liquefaction and gasification and unconventional natural gas. * * *

[*Id.* at 7–8, 1980–3 C.B. at 143–144.]

The Senate Committee on Finance described the reasons for the credit as follows:

The committee believes that a tax credit for the production of energy from alternative sources will encourage the development of these resources by decreasing the cost of their production relative to the price of imported oil.

These alternative energy sources typically involve new technologies, and some subsidy is needed to encourage these industries to develop to the stage where they can be competitive with conventional fuels. The

information gained from the initial efforts at producing these energy sources will be of benefit to the entire economy.

* * * * *

* * * If the credit leads to the development of these alternative sources, it would make a major contribution to reducing our dependence on imported energy.

[*Id.* at 87, 1980-3 C.B. at 205.]

The conference report confirms that “[t]he conference agreement adopts a modified version of the Senate amendment.” H.R. Conf. Rept. No. 96-817, at 139 (1980), 1980-3 C.B. 245, 299. Both the Senate Committee on Finance report and the conference report noted that “[g]enerally, * * * [is] available [only] for energy produced for sale to other persons.” S. Rept. No. 96-394, *supra* at 88, 1980-3 C.B. at 206; H.R. Conf. Rept. No. 96-817, *supra* at 138, 1980-3 C.B. at 298.

The partnerships argue that the congressional purpose in creating the FNS credit has evolved over time to cover not only encouragement of production of fuel but also “the extraction of landfill gas to reduce greenhouse gas emissions and avoid potentially unsafe build-up of landfill gases.” To support their argument, they cite several statements by Senators made while discussing extensions of the FNS credit in 1992 and 1995.

We are not persuaded by the partnerships’ arguments. Neither the statute nor the Senate or House of Representatives committee or conference report covering the legislation enacting the FNS credit extensions includes any statements that would allow us to infer the existence of another purpose for the FNS credit. Lack of any significant changes, except for expiration dates of the tax credits, to the text of section 29 confirms our reasoning. Whatever the individual Senators’ opinions may have been on the issue, these opinions do not necessarily reflect the position of Congress. *See Graff v. Commissioner*, 74 T.C. 743, 754 (1980) (citing *Chrysler Corp. v. Brown*, 441 U.S. 281, 311(1979)), *aff’d*, 673 F.2d 784 (5th Cir. 1982). Congress has various other means available to encourage investment in LFG and greenhouse gas management systems besides providing a tax subsidy. Indeed, such investments are mandatory under various Federal and State

statutes dealing with environmental issues and landfill industry regulations.²⁴

With that in mind, we conclude that Congress' primary goal in enacting the FNS credit was to encourage production of energy from alternative sources to reduce the dependency on imported energy. We will interpret section 45K according to this general purpose.

C. The Partnerships' Eligibility for FNS Credits

1. Qualified Fuel

The partnerships and respondent disagree on whether untreated LFG is "qualified fuel" for purposes of FNS credit eligibility. The partnerships maintain that untreated LFG straight out of a landfill is "qualified fuel", while respondent maintains that "qualified fuel" requires something more, such as treatment to remove impurities to make the fuel energy grade.

Section 45K discusses several types of qualified fuels, but we need discuss only one type of qualified fuel, "gas produced from * * * biomass". Sec. 45K(c)(1)(B). Our inquiry will have two steps. First, we need to determine whether untreated LFG is "fuel". Second, we need to determine whether LFG produced from specific landfills in question is "qualified fuel" as "gas produced from biomass".

a. Whether Untreated LFG Is Fuel

Section 45K does not define what constitutes fuel, and there are no applicable regulations on this issue. We must "apply the plain meaning of the words prescribed in the text unless we find that a word's plain meaning is 'inescapably ambiguous'". *Allen v. Commissioner*, 118 T.C. 1, 7 (2002) (citing *Venture Funding, Ltd. v. Commissioner*, 110 T.C. at 241–242).

Webster's Collegiate Dictionary 470 (10th ed. 1999) defines fuel as "a material used to produce heat or power by

²⁴By the time the FNS credit was enacted, there were a number of Federal statutes dealing with environmental issues in the solid waste disposal industry. For example, in 1955 Congress enacted the Air Pollution Control Act (APCA), Pub. L. No. 84–159, 69 Stat. 322 (1955), which was amended several times, including the 1965 amendment introducing the Solid Waste Disposal Act (SWDA), Pub. L. No. 89–272, sec. 201, 79 Stat. at 997. In 1976 Congress enacted the Resource Conservation and Recovery Act of 1976 (RCRA), Pub. L. No. 94–580, 90 Stat. 2795.

burning”. LFG is a composite gas consisting of methane, carbon dioxide, and trace amounts of other gases or substances. Although carbon dioxide cannot be burned to produce heat or power, methane is commonly used for this purpose. While untreated LFG is rarely used to produce heat or power because it can be corrosive, in theory it can be burned if the methane content is high enough, and the heat can be used for some industrial purposes. Thus, LFG fits the plain meaning of the word “fuel”, but only if the methane content is high enough for the LFG to burn.²⁵

b. *Whether LFG Is “Qualified Fuel” Under Section 45K*

Moving to the second step of our inquiry, we now need to determine under what conditions LFG is “qualified fuel” for purpose of the FNS credit. As we previously discussed, the term “qualified fuel” includes “gas *produced* from * * * biomass”. Sec. 45K(c)(1)(B)(ii) (emphasis added). The statute defines the term “biomass” broadly to include any organic material other than oil, natural gas, or coal (including lignite) or any product thereof. *See* sec. 45K(c)(3). The legislative history confirms that Congress intended “biomass” to be defined broadly and include municipal waste:

[B]iomass includes waste, sewage, sludge, grain, wood, oceanic and terrestrial crops and crop residues and includes waste products which have a market value. The conferees also intend that the definition of biomass does not exclude waste materials, such as municipal and industrial waste, which include such processed products of oil, natural gas or coal such as used plastic containers and asphalt shingles. [H.R. Conf. Rept. No. 96–817, *supra* at 132, 1980–3 C.B. at 292.]

This definition was in the discussion of the business energy investment tax credits rather than the alternative energy fuel production credits adopted in the same bill. The alternative energy fuel production discussion contains a similar definition of biomass: “Biomass includes organic waste, municipal and industrial waste, sewage, sludge, and oceanic and terrestrial crops (including byproducts and residues). *Id.* at 138, 1980–3 C.B. at 298.

²⁵The Commissioner reached a different conclusion in C.C.A. 201017043 (Apr. 30, 2010): “For purposes of [sec.] 45K, a ‘qualified fuel’ must be energy-production grade. Therefore, gas collected from landfills must be energy-production grade, or pipeline grade methane in order for the sale of such gas to qualify for the [sec.] 45K credit.”

The parties agree that LFG is a byproduct of municipal waste decomposition, and municipal waste is “biomass” for purposes of section 45K. They clash, however, on what it means to “produce” a gas from biomass. The partnerships maintain that even LFG passively vented into the atmosphere or destroyed by flaring is still “qualified fuel” within the meaning of section 45K as long as they had a few wells and pipes to collect LFG. Respondent argues that such an interpretation would contradict the congressional purpose of encouraging production of energy from nonconventional fuels. Respondent points out that simply collecting LFG that occurs in nature does not qualify as “production” for purposes of section 45K. Further, respondent states that a certain degree of processing is necessary to qualify LFG as “produced” for purposes of the FNS credit.

Webster’s Collegiate Dictionary 930 (10th ed. 1997) has seven definitions for the verb “produce”, including: “2 : to give birth or rise to : YIELD * * * 5 a : to cause to have existence or to happen : BRING ABOUT b : to give being, form, or shape to : MAKE; esp. MANUFACTURE 6 : to compose, create, or bring out by intellectual or physical effort”. This definition makes it clear that the word “produce” has several dictionary meanings, some connoting a certain degree of human effort, others arguably not.

To determine which definition of “produce” we should use here, we feel compelled to look into the legislative history of section 45K. See *Commissioner v. Soliman*, 506 U.S. at 174. In addition, we note that the word “produce” may have different meanings when placed in context with the rest of the statute. See *True Oil Co. v. Commissioner*, 170 F.3d at 1299 (“The word must be placed in context with the remaining language of the statute[.]”).

Respondent argues that the kind of production that Congress had in mind when enacting the FNS credit was one requiring significant human involvement. As respondent sees it, this is evidenced by the fact that the requirement of production appears not only in the definition of “qualified fuel” but also in other parts of section 45K. For example, section 45K(f)(1) addresses production at a “facility for producing qualified fuels”, and section 45K(a)(2)(B) requires that production of qualified fuel must be “attributable to the tax-

payer”.²⁶ Respondent argues that these requirements would be unnecessary if unprocessed LFG already existing in nature was “qualified fuel” for the FNS credit.

The partnerships counter that untreated LFG is “gas produced from biomass” because it is a product of municipal waste decomposition. They also maintain that they fulfilled the production requirement by installing various combinations of wells, blowers, header pipes, flares, and gas-to-energy equipment at all landfills at issue. At a minimum, the wells and header pipes allowed the partnerships to collect some of the LFG from the landfill and release it into the atmosphere.

Further, respondent argues that LFG must be refined or processed to fall under the definition of qualified fuel under section 45K. The partnerships, however, properly point out that because the amount of the FNS credit is based on the BTU content of a qualified fuel, the FNS credit already takes into account the quality of the fuel. For example, the amount of FNS credit per cubic foot of gas will be higher for pure methane than for untreated LFG which consists only partially of methane and, consequently, has lower BTU value.

Both parties provided us with interpretations of section 45K(c)(1)(B) that are consistent with at least one of the definitions of the word “produce” that we can obtain by reference to a dictionary. After carefully considering the arguments made by the parties, the legislative history of the FNS credit, and the context in which the word “produce” is used in different portions of section 45K, we come to the inevitable, albeit unusual, conclusion that the meaning of the word “produce” varies depending on the surrounding text in different parts of section 45K.²⁷ Specifically, we find that the word “produce” has different meanings in defining qualified fuel under section 45K(c)(1)(B) and a facility for producing qualified fuels under section 45K(f)(1).

Section 45K(c)(1) provides: “In general.—The term “qualified fuels” means— * * * gas produced from * * * biomass”.

²⁶We will address these additional requirements later in this Opinion, and we now address only the issue of what it means to produce gas from biomass for purposes of the “qualified fuel” definition.

²⁷Usually, when Congress uses the same term in different parts of a statute, we interpret the statute to give the term the same meaning. *See, e.g., Elec. Arts, Inc. v. Commissioner*, 118 T.C. 226, 241 (2002).

Nothing in subsection (c)(1) precludes the interpretation of the word “produce” as designating the natural process of municipal waste decomposition which involves chemical reactions resulting in the emission of LFG. Our reading is consistent with the intent of Congress to encourage tapping into alternative fuels for the production of energy. *See* S. Rept. No. 96–394, *supra* at 7–8, 1980–3 C.B. at 143–144. Defining “qualified fuels” broadly promotes this purpose by covering various substances which may be a result of natural processes but are not suitable for commercial “harvesting” without a subsidy.

We are not persuaded by respondent’s argument that “gas produced from biomass” necessarily requires some degree of transformation. By way of example from a somewhat similar industry, crude oil is often pumped out of wells and then shipped to remote refineries to be transformed into gasoline. The entity that pumps the oil and the entity that refines it are not necessarily the same, and often there are good business reasons for separating production of crude oil from refining.²⁸

Our interpretation of the word “produce” as not necessarily requiring transformation or processing in the context of defining “qualified fuel” is also consistent with the way Congress structured the computation of the credit. The amount of the credit is measured by reference to the barrel-of-oil equivalent of fuel sold by a taxpayer and BTU content. We agree with the partnerships that this way of computing the credit already takes into account potential low quality of the fuel produced by reducing the amount of the FNS credit available. Interpreting the word “produce” in the context of section 45K(c)(1) as requiring some processing or transformation may lead to absurd results.

Accordingly, we conclude that untreated LFG is “qualified fuel” under section 45K and is eligible for the FNS credit if all other statutory requirements are met.

²⁸ Some of the reasons may include managing risks, economies of scale, obtaining financing on better terms, and even regulatory requirements.

2. Production From a Facility Placed in Service Before July 1, 1998

a. Overview

Section 45K(e) requires that qualified fuels be produced in a facility placed in service after December 31, 1979, and before January 1, 1993. Section 45K(f) further extends the “placed in service” deadline for gas produced from biomass to July 1, 1998, for a “facility for producing qualified fuels” that is placed in service pursuant to a binding written contract in effect before January 1, 1997. Sec. 45K(f)(1)(A).

The partnerships and respondent disagree on several issues. First, the parties disagree on what constitutes a facility for producing qualified fuels. Second, the parties dispute what constitutes a facility “placed in service” by a certain deadline.²⁹ We address these arguments in turn.

b. Facility for Producing Qualified Fuels

The partnerships argue that they have met the requirements of section 45K(e) and (f) because, at a minimum, they have drilled wells and installed header pipes at all of the landfills. As they see it, this is sufficient to constitute a facility for production of LFG within the meaning of the statute. They also maintain that they met the requirement in section 45K(f) that a production facility be placed in service pursuant to a binding written contract in effect before January 1, 1997, because they had LLAs in place for every landfill at issue before that date. Under the provisions of the LLAs, the partnerships had the right to install LFG management and gas-to-energy systems at all the landfills at issue.

Respondent suggests that wells connected to a header pipe, without more, do not constitute a facility for production of LFG within the meaning of the statute. Both parties presented testimony of expert witnesses on what constitutes a facility in the LFG industry in general.

The partnerships’ expert witness, Dr. Williams, suggested that there are several types of LFG collection and treatment systems. Such systems are installed mostly to meet various

²⁹The parties stipulated that facilities for producing qualified fuel were placed in service before July 1, 1998, for the following six landfills: Beecher, Lansing, Lyons/McCook, Pontiac, Peoria, and Springfield. Thus, we do not discuss these landfills in this section.

regulatory requirements related to environmental issues arising out of landfill operations. For small or old landfills, it is often enough to drill vertical wells to relieve the pressure inside the landfill and let the gas flow through the passive vents into the atmosphere. For small to medium landfills, the owners may be required to install a passive flare in addition to wells. This is warranted for landfills with higher methane gas concentration in the LFG, where there are odor problems, or where passive venting is inadequate, but the landfill is too small to require a more sophisticated system. LFG is combusted in passive flares to safely destroy methane and reduce pollution. The next level of LFG management systems is active gas collection and flaring systems. These systems use vacuum pumps or blowers to create reduction in pressure at the well heads to improve the efficiency of LFG recovery. The LFG is then routed through a network of pipes to a more powerful flare, where it is burned and any byproducts are released into the atmosphere. Finally, larger landfills meeting certain requirements may install gas-to-energy systems, which typically would include a turbine or engine of some sort that would use LFG to produce electricity or other forms of energy, such as heat. Prerequisites to the installation of such systems are that the energy user be close to the landfill and that transmission lines and a substation be accessible if electricity is to be produced.

Dr. Williams noted that LFG is not suitable for piping long distances because of its high moisture content and low pH. If LFG is to be piped, it must be pretreated to remove moisture, carbon dioxide, and other substances. LFG can also be used in leachate evaporation systems as a heat source, but such systems are rare and require extensive maintenance. Dr. Williams also explained that because of high capital and operating costs of LFG purification/refinery systems, these systems are rarely used in the United States.

Despite the dazzling variety of available solutions to LFG management needs, Dr. Williams in his report concluded that a landfill that has vertical wells installed constitutes a facility for production of LFG because LFG will be flowing to the surface through the wells. For some smaller landfills this would also be sufficient to comply with environmental regulations. Thus, Dr. Williams concluded that every landfill at issue had a facility for production of LFG.

Dr. Benson, respondent's expert, used a somewhat similar approach differentiating "active" and "passive" gas collection systems. Active systems typically consist of wells, pipes, blowers, and a flare or a gas-to-energy system. Treatment of LFG generally consists of conversion through combustion, i.e., by burning in a flare, or through beneficial use applications, i.e., in gas-to-energy systems. Dr. Benson noted that in many cases such systems will include pretreatment modules to remove impurities before feeding LFG to a flare or engine. Dr. Benson carefully examined facts related to each of the landfills at issue to determine whether an active gas collection and treatment facility existed at a particular site. Dr. Benson looked at whether a specific site had wells, lateral and header pipes, blowers, flares, and gas-to-energy systems installed. Dr. Benson also looked at whether there were contracts between RTC and landfill owners providing RTC with exclusive rights to collect LFG and convert it into energy and whether appropriate permit applications were submitted timely. Dr. Benson testified that, in his opinion, simply drilling a well would not be sufficient for a landfill to constitute a facility for production of LFG.

Section 45K does not define "facility" or "facility for producing qualified fuels". Legislative history also does not shed much light on this issue, but we note that the Senate and the House agreed that the credit should be available only "for energy produced for sale to other persons." S. Rept. No. 96-394, *supra* at 88, 1980-3 C.B. at 206; H.R. Conf. Rept. No. 96-817, *supra* at 138, 1980-3 C.B. at 298. Although this requirement does not appear in the final text of the statute, it appears in the same sections of the Senate and House reports which discuss the requirement of facilities placed in service by a certain deadline. S. Rept. No. 96-394, *supra* at 88, 1980-3 C.B. at 206; H.R. Conf. Rept. No. 96-817, *supra* at 138, 1980-3 C.B. at 298. In the light of this statement, we conclude that the kind of facility Congress had in mind when enacting the FNS credit would be one that could produce energy or is connected to an energy production facility or is capable of storing or delivering fuel to a customer for subsequent use or production of energy.

Both parties relied heavily on definitions and conclusions provided by their experts. After considering expert reports, rebuttal reports, and witness testimony, we find the partner-

ships' expert witness' position unpersuasive with respect to what constitutes a facility. It may be true that a few wells may be sufficient to comply with environmental regulations and allow LFG to be emitted safely into the atmosphere. This, however, is insufficient in the light of the overarching goal of enacting the FNS credit legislation.

Congress clearly articulated the goal of encouraging production of energy from nonconventional sources.³⁰ Congress and State legislatures also enacted separate legislation mandating various remedial measures for landfill operators. Interpreting the statute the way the partnerships suggest would conflate the two distinct statutory and regulatory schemes and would essentially allow any landfill owner or operator to claim the FNS credit for any landfill, whether or not the landfill was suitable for producing LFG in amounts sufficient to run a gas-to-energy system or to be sold on an open market in the first place. This is not what Congress aimed to achieve by using two different methods to regulate LFG emissions and production of energy from alternative sources.

Lack of references in section 45K to any then-existing statutes relating to the solid waste disposal industry confirms that Congress did not intend to conflate incentives available under the Code and other environmental statutes.³¹ Had it

³⁰Some scholars suggest, and we agree, that the implementation of this good intention leaves much to be desired. For example, one scholar said: "If there were an award for the worst tax credit ever, the sec[.] 29[45K] nonconventional-source fuel tax credit * * * would probably be the winner." Martin A. Sullivan, "Multibillion Dollar Coal Credit: Lots of Form, Little Substance", 101 Tax Notes 34 (2003) (discussing application of FNS credit to chemically modified coal).

³¹We observe that by 1980, when the FNS credit was enacted, there were a number of Federal statutes dealing with environmental issues in solid waste disposal. For example, in 1955 Congress enacted the APCA, which was amended several times, including the 1965 amendment introducing the SWDA. In the RCRA, 42 U.S.C. sec. 6901(d) (2012), Congress recognized that

- (1) solid waste represents a potential source of solid fuel, oil, or gas that can be converted into energy;
- (2) the need exists to develop alternative energy sources for public and private consumption in order to reduce our dependence on such sources as petroleum products, natural gas, nuclear and hydroelectric generation; and
- (3) technology exists to produce usable energy from solid waste.

intended to do so, it would have inserted a direct reference to the corresponding environmental statutes or regulations, as it did in section 45K(c)(2)(A), with respect to gas produced from a tight formation, by referring to the Natural Gas Policy Act of 1978, Pub. L. No. 95–621, sec. 503, 92 Stat. at 3397. *See generally True Oil Co. v. Commissioner*, 170 F.3d at 1300 (discussing congressional intent for referencing to Natural Gas Policy Act of 1978 sec. 503 and concluding that the taxpayer had to follow certification procedures outlined in that section as a prerequisite to claiming a section 29/45K FNS credit).

For these reasons, we are not required to construe the term “facility for producing qualified fuels” as used in section 45K(f)(1) with respect to, inter alia, production of LFG in the same manner as this term would be construed under various environmental statutes and regulations relating to the solid waste disposal industry. Instead, we interpret the term as applied to production of LFG from biomass to give effect to congressional intent in enacting the FNS credit. In particular, we believe that in the context of section 45K(f)(1), the word “producing” in “facility for producing of qualified fuels” requires a deliberate action or effort on behalf of the taxpayer. Unlike section 45K(c)(1)(B), where we concluded that the word “produce” may be used to designate a natural process, a “facility for producing qualified fuels” under section 45K(f)(1) must allow a taxpayer to capture, sell, or even transform LFG into energy.

Systems consisting of vertical wells passively venting LFG into the atmosphere or wells connected to a passive or active flare do not qualify as a “facility for producing qualified fuels” under section 45K(f)(1). These systems are not meant to produce energy and do not capture any fuels which could be used by someone else for that purpose. Thus, allowing FNS credits for LFG from such systems would be contrary to congressional intent.

The RCRA also defines “resource recovery facility” as “any facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse.” *Id.* sec. 6903(24).

Bearing in mind the specifics of the LFG industry,³² we conclude that to qualify as a “facility for producing qualified fuels” under section 45K(f)(1), a system of wells, pipes, blowers, and equipment for pretreatment and measuring production of gas, if necessary, must be connected to either a gas-to-energy system or a system that allows storing and/or treating LFG before routing it to gas pipelines or otherwise preparing it for delivery to a customer.³³

Our conclusion is limited to the LFG industry because what constitutes a “facility” for purposes of section 45K may differ for other qualified fuels which may be more susceptible to long-distance transportation before refining.

c. “Placed in Service” Requirement

Because the parties disagree on what constitutes a facility for producing LFG, they also disagree on when such a facility should be considered as placed in service.

Section 45K does not define the term “placed in service”. However, when Congress uses the same or a similar term elsewhere, we may look to those sections for assistance in interpreting the term. *See Elec. Arts, Inc. v. Commissioner*, 118 T.C. 226, 241 (2002). Section 168(d), dealing with computation of depreciation deductions, contains one of the most commonly recognized uses of the phrase “placed in service”. For section 168(d), an asset is placed in service when it is “in a condition or state of readiness and availability for a specifically assigned function”. Sec. 1.167(a)–11(e)(1)(i), Income Tax Regs.; *see also* sec. 1.46–3(d)(1)(ii), Income Tax Regs. (using the same definition of “placed in service” for purposes of the investment tax credit under section 38). To be considered placed in service, a facility must be ready and available for

³²The experts explained that LFG is rarely piped long distances because of its volatility and corrosiveness and the difficulties related to pretreatment. If a gas-to-energy system is installed, the end user is usually somewhere nearby. If electricity is produced, the engine is often on site and is connected to the electrical grid and a substation.

³³We are mindful of the expenses involved in financing the construction of these facilities, and we recognize that different components may be owned by different entities. We also recognize, however, that an analogy to the oil or natural gas industry would not work here because of the unique features of LFG that mandate either transforming it into energy on site or significantly refining it before it can be transported by means of a gas pipeline or in liquefied form.

that specific function on a regular basis. See *Consumers Power Co. v. Commissioner*, 89 T.C. 710, 724–725 (1987); *Piggly Wiggly S., Inc. v. Commissioner*, 84 T.C. 739, 746–748 (1985), *aff'd*, 803 F.2d 1572 (11th Cir. 1986).

This Court has applied a number of factors to determine whether a facility has been placed in service, especially in the context of power plants and electricity-generating facilities. See *Sealy Power, Ltd. v. Commissioner*, 46 F.3d 382 (5th Cir. 1995), *aff'g in part, rev'g in part* T.C. Memo. 1992–168; *Oglethorpe Power Corp. v. Commissioner*, T.C. Memo. 1990–505. These factors include:

- 1) whether the necessary permits and licenses for operation have been obtained; 2) whether critical preoperational testing has been completed; 3) whether the taxpayer has control of the facility; 4) whether the unit has been synchronized with the transmission grid; and 5) whether daily or regular operation has begun. * * * [*Sealy Power, Ltd. v. Commissioner*, 46 F.3d at 395; fn. ref. omitted.]

Application of this multifactor test requires balancing the factors as applied to the specific facts of a case. *Id.* Some of the factors may not be applicable at all. See *Oglethorpe Power Corp. v. Commissioner*, T.C. Memo. 1990–505 (discussing application of preoperational testing and synchronization factors under the facts of the case).

The partnerships contend that certain factors of the multifactor test outlined above weigh in their favor. First, it is undisputed that RTC had control over the facilities before July 1, 1998, under the terms of various LLAs. Second, the partnerships maintain that they secured all necessary permits for the facilities before July 1, 1998. Finally, on the basis of Dr. Williams' testimony, they claim that facilities were ready and available for use as soon as vertical wells and header pipe were put in place, which, as they argue, also happened before July 1, 1998. They argue that the synchronization and preoperational testing factors are inapplicable to the LFG systems in question but do not offer much of an explanation.

With respect to permits, all 24 landfills were self-certified to the Federal Energy Regulatory Commission as qualified solid waste facilities under the Public Utilities Regulatory Policies Act of 1978. In addition, the 12 landfills in Illinois were also certified as qualified solid waste energy facilities by the Illinois Commerce Commission. As explained by Mr.

Connolly, the effect of these certifications was to give preferential treatment to energy actually produced from such landfills when contracting with local utilities. The partnerships secured operating permits for all landfills except Bi-State (IEPA denied an application for an active LFG collection and management system on July 10, 1998), GNOL (operating permit approved on May 25, 1999), and Wheatland (construction permit approved on December 3, 1998; a separate approval for installation of a gas collection and control system was required thereafter).

Dr. Williams, the partnerships' expert, testified that an LFG facility must be considered placed in service as soon as a single vertical well is installed, even if the system is intended to be a gas-to-energy system. Dr. Williams cited numerous environmental benefits that result from the installation of vertical wells, such as decreasing the pressure in the landfill, changing the direction of LFG flow, and minimizing the potential that LFG may flow beyond the site boundary.

These environmental benefits, however, have nothing to do with the purpose of the FNS credit. As we discussed above, an LFG management system sufficient to meet environmental regulatory requirements may not be sufficient to qualify as a "facility for producing qualified fuels" under section 45K(f)(1). The FNS credit requires a facility to be able to produce qualified fuel which could later be sold to an unrelated party. Thus, the facility must be ready and available for that specific function on a regular basis to be considered "placed in service". See *Consumers Power Co. v. Commissioner*, 89 T.C. at 724; *Piggly Wiggly S., Inc. v. Commissioner*, 84 T.C. at 746–748.

This Court has previously held that when an individual component that is designed to operate as a part of a larger system is incapable of contributing to the system in isolation, it is not regarded as placed in service until the entire system reaches a condition of readiness and availability for its specifically assigned function. See, e.g., *Consumers Power Co. v. Commissioner*, 89 T.C. at 725–726 (holding the upper reservoir component of a pumped storage hydroelectric plant not placed in service until the entire plant was placed in service because the physical plant and reservoir operated simultaneously as one integrated unit to produce electrical power).

Many Courts of Appeals have taken the same position. *See, e.g., Sealy Power, Ltd. v. Commissioner*, 46 F.3d at 390; *Armstrong World Indus., Inc. v. Commissioner*, 974 F.2d 422, 434 (3d Cir. 1992) (“[C]ourts appear to agree that individual components will be considered as a single property for tax purposes when the component parts are functionally interdependent—when each component is essential to the operation of the project as a whole and cannot be used separately to any effect.”), *aff’g* T.C. Memo. 1991–326; *Hawaiian Indep. Refinery, Inc. v. United States*, 697 F.2d 1063, 1069 (Fed. Cir. 1983) (an offshore tanker-mooring facility and accompanying pipelines were considered placed in service at the same time as a refinery facility when the system was designed and constructed as a single unit); *Pub. Serv. Co. v. United States*, 431 F.2d 980, 983–984 (10th Cir. 1970).

Because of the specifics of LFG as a fuel, it is rarely transported long distances or refined at off-site refineries. In most cases, gas-to-energy facilities are on site and represent a single system consisting of wells, pipes, blowers, pretreatment facilities, measuring equipment, and gas-to-energy turbines or engines. Although it is conceivable that different parts of such systems may be owned by different taxpayers, the operation of these components is interdependent in that they are designed and constructed to operate as a single unit, similar to facilities at issue in *Consumers Power Co.* and *Hawaiian Indep. Refinery, Inc.*

Wells and pipes alone may be considered placed in service for environmental regulatory compliance purposes when they are designed and intended to be the sole components of an LFG management system, but it would be a stretch to say that they could be independently useful for the purpose of producing qualified fuel for sale. To give an analogy from the oil and gas industry, wells and pipes not connected to anything may still bring oil and gas to the surface, creating oil spills and gas leaks. Colloquially, we tend to characterize both events as environmental disasters, not production of fuel for sale.

Further, we believe there is strong evidence that RTC, at least initially, planned to develop gas-to-energy facilities at each of the landfills. In negotiating LLAs with landfill owners, RTC promised owners royalties measured as a percentage from the sales of electricity produced with LFG

from a particular landfill. Without completing a gas-to-energy project or an LFG refining project at each landfill, RTC would not be able to receive any return on its investment in drilling the initial wells.³⁴

However, at some point RTC realized that it was not capable of attracting sufficient financing to accomplish this ambitious goal. This is when RTC's investors decided to try their luck with the FNS credit scheme and created Green Gas to "monetize tax credits". The only thing generated by the wells at venting/flaring landfills after that was FNS credits. The scheme worked so well that Mr. Nichols was eventually able to sell some of the generated tax credits through his lawyers at Chuhak.

According to the partnerships, the following landfills had only wells and header pipe installed by June 30, 1998: Bi-State, Bloomington, Clarion, Columbus, Elliott, Fort Dodge, GNOL, Kewanee, Litchfield, New Haven, Rosencranse, Taylor Ridge, Viola, Wheatland, and Wyandot. Chastang, Congress, and Gary had wells, header pipe, and flare(s) installed by June 30, 1998.³⁵ None of these landfills had any gas-to-energy or gas storage/refining equipment by June 30, 1998, or had wells connected to such equipment elsewhere.³⁶ Thus, there were no facilities for production of qualified fuels within the meaning of section 45K(f)(1) placed in service at any of these landfills by June 30, 1998. Even though some of these landfills were later equipped with gas-to-energy systems, the proper date for placement in service would be the date when the gas-to-energy system was available for its specific function on a regular basis, not the date the first well was drilled.

³⁴We do not believe RTC helped others to comply with environmental regulations out of charity.

³⁵The record is inconclusive as to when exactly RTC or the partnerships started depreciating the wells and header pipe for all the landfills listed in this paragraph. Lack of evidence on this issue may be indicative of the fact that RTC or the partnerships themselves did not treat the projects as completed for depreciation purposes as of June 30, 1998.

³⁶Moreover, it appears that at some of the landfills the drilled wells and header pipe were insufficient to comply with environmental regulations and the terms of operating permits.

3. *Production Attributable to the Partnerships*

a. *Overview*

One of the requirements for obtaining the FNS credit is that production of qualified fuels be attributed to the taxpayer claiming the credit. Sec. 45K(a)(2)(B). Where more than one person has an interest in the property or facility that produces qualified fuel, production is allocated in proportion to the respective interests in gross sales. Sec. 45K(d)(3).

The parties disagree whether production of LFG was attributable to the partnerships for certain landfills for a number of reasons. For some of the landfills, the partnerships could not produce any evidence, except the self-serving testimony of Mr. Connolly and Mr. Nichols, that GRAs or GSAs existed between the partnerships and RTC. For other landfills, respondent contends that the rights of the partnerships to produce and sell LFG were affected by the bankruptcy court orders related to RTC. We address these arguments in turn.

b. *Missing GRAs and GSAs*

We observe that, in general, the partnerships were able to introduce into evidence GRAs and GSAs documenting relationships between RTC and Green Gas with respect to all of the venting/flaring landfills. They also produced GRAs and GSAs with respect to the Pontiac landfill between Pontiac Trust and RTC. However, with respect to several nonventing landfills, there are no GRAs and/or GSAs in the record that would document the relationships between Green Gas and RTC. Green Gas nevertheless claimed FNS credits with respect to each of the landfills discussed below during the years at issue.

For the Congress landfill, the GRA and the GSA in evidence are between Hillside Gas Producers and RTC. Mr. Connolly testified at trial that this relationship soured sometime in 2003, at which time the contracts were transferred to Green Gas. We do not find this testimony reliable or credible in the absence of any corroborating witness testimony or written evidence. Under *Wichita Terminal Elevator Co. v. Commissioner*, 6 T.C. 1158, 1165 (1946), *aff'd*, 162 F.2d 513 (10th Cir. 1947), a taxpayer's failure to provide otherwise

available information may lead to a presumption that such information would have actually been unfavorable if produced. Thus, we conclude that Green Gas did not have the rights to produce or sell gas to RTC or any other entity with respect to Congress landfill for the years at issue.

RTC had GRAs and GSAs with Illini Gas Producers, LLC, for the Peoria and Springfield landfills. The record does not contain any testimony or other evidence that would explain when that relationship ended and when RTC entered into corresponding GRAs and GSAs with Green Gas. Accordingly, we conclude that Green Gas did not have the rights to produce or sell gas to RTC with respect to the Springfield or Peoria landfill for the years at issue.

Finally, for the Lyons/McCook landfill, RTC initially entered into a GSA with Biodyne, Inc., for that landfill in 1996. In 1999 RTC entered into a GRA with respect to Lyons/McCook landfill with Illini Gas Producers, LLC. Mr. Connolly testified that there was a corresponding GSA. In 2000 RTC and Green Gas entered into a GRA for the Lyons/McCook landfill. There is no corresponding GSA between RTC and Green Gas. However, it would be consistent with the general pattern of RTC and Green Gas contracts to conclude that there was a GSA with respect to the Lyons/McCook landfill, even if such an agreement may have been oral. Because Green Gas had the lease rights to the facilities and gas produced under the Lyons/McCook GRA, it would be the only entity which could sell LFG in any event.

c. Effect of Bankruptcy Court Orders

i. Overview

Respondent contends that the partnerships' rights in the following landfills were affected by the bankruptcy court orders with respect to RTC: Clarion, Pontiac, Wheatland, Wyandot, Congress, Rosencranse, Lyons/McCook, Beecher, Chastang, and Elliott. Because we have previously held that all of these landfills except Beecher, Pontiac, and Lyons/McCook did not have facilities for production of LFG placed in service by the statutory deadline, we do not need to address the arguments with respect to these landfills. As will be discussed further in this Opinion, we sustain respondent's determination regarding FNS credits for the Beecher landfill because the partnerships failed to substantiate them.

Thus, we need only address the partnerships' rights with respect to the Pontiac and Lyons/McCook landfills.

ii. *Pontiac*

RTC's LLA with Allied covering the rights to the Pontiac landfill was set to expire on November 21, 2005. To renew it, RTC was required to send Allied a written notice indicating its intent to renew no later than November 21, 2005. Upon mutual agreement of the RTC estate trustee and Allied, that term was extended through December 31, 2005. However, the parties did not renew the agreement by that date.

When Scattered, RTC's successor, filed a motion to compel the chapter 7 trustee to assume the Pontiac LLA, the bankruptcy court determined in an order that the Pontiac LLA could not be assumed because it had expired according to its terms on December 31, 2005. The order was subsequently appealed in the District Court for the Northern District of Illinois and to the Court of Appeals for the Seventh Circuit. Both courts affirmed the bankruptcy court's order. *See Chiplease, Inc. v. Steinberg (In re Res. Tech. Corp.)*, 528 F.3d 467.

In addition to the bankruptcy court litigation, Scattered explored another avenue to get the Pontiac landfill back. Pontiac was subject to the Aquila DIP loan and consent agreement, and Scattered acquired all the rights under the Aquila DIP loan on December 28, 2005. On June 27, 2008, pursuant to the terms of the Aquila DIP loan, Scattered demanded that Allied enter into a replacement project agreement with Scattered, as designee under the Aquila DIP loan and the consent agreement. Allied refused to do so.

On October 14, 2008, Scattered filed a breach of contract action in a State court. On August 26, 2009, the court granted Allied's motion to dismiss, and Scattered appealed that order. This litigation resulted in a settlement dated August 29, 2011, which covered the rights to the Clarion, Pontiac, Wheatland, and Wyandot landfills.

It is notable that Scattered chose not to present this second legal theory in the bankruptcy proceedings, even though by the time of adjudication of the Pontiac LLA assumption Scattered had already acquired the rights under the Aquila DIP loan. We give proper deference to the determinations of the

Court of Appeals for the Seventh Circuit and agree that the Pontiac LLA terminated pursuant to its terms on December 31, 2005. Scattered was a party to that litigation and is bound by this determination.

Subsequent attempts of Scattered to force Allied to enter into the replacement project agreement did not begin until the middle of 2008. There was no LLA with respect to the Pontiac landfill in 2006 and 2007, and the RTC estate, Scattered, and Pontiac Trust were well aware of that. Further, all gas-to-energy engines were removed from Pontiac on or about June 16, 2006. Allied prohibited RTC and Pontiac Trust from accessing the site after that date.

Now we turn to the issue of how this affected Pontiac Trust's entitlement to FNS credits. Respondent argues that because RTC's rights with respect to the Pontiac landfill had expired, Pontiac Trust did not have any derivative rights in the facilities at the Pontiac landfill in 2006–07. Despite that, RTC and Pontiac Trust continued to create documents reflecting sales of produced LFG, O&M expenses, and lease payments from Pontiac Trust to RTC for the use of the facilities.

The partnerships argue that despite a judicial determination that the Pontiac LLA expired as of December 31, 2005, Scattered still had a sufficient interest in the Pontiac landfill as a secured creditor after it took over the rights under the Aquila DIP loan agreement. Thus, Pontiac Trust had sufficient derivative rights in the facilities to claim FNS credits for LFG produced and sold. We observe, however, that Scattered first asserted its rights as a secured creditor in 2008, when Pontiac Trust ceased its operations because of the expiration of the FNS credit provisions.

The partnerships also argue that Pontiac Trust was required to report income from the sale of LFG during the times when RTC's or its successors' rights under the underlying LLAs were in dispute up until the time of entry of a final and unappealable judgment that the LLAs were terminated. They rely on the claim of right doctrine that requires a taxpayer to include in income all earnings received in a particular year even though the taxpayer may be required to return the money at a future date. *See N. Am. Oil Consol. v. Burnet*, 286 U.S. 417, 424 (1932); *Teitelbaum v. Commissioner*, 346 F.2d 266, 269 (7th Cir. 1965) (holding that the

taxpayer had to report an overpayment received for the sale of property in the year received even though it was later determined that the taxpayer was not entitled to the overpayment), *aff'g* T.C. Memo. 1964-141. The partnerships maintain that RTC or its successors could have required disgorgement of profits received by Pontiac Trust for the sale of LFG although they never actually pursued that route.

The claim of right doctrine is a well-established principle of Federal income taxation and has been reaffirmed by the Supreme Court on several occasions. *See, e.g., Healy v. Commissioner*, 345 U.S. 278, 281-282 (1953); *United States v. Lewis*, 340 U.S. 590, 591-592 (1951). Under the doctrine, a taxpayer must determine its income at the end of the tax year without regard to possible subsequent events. *See Lewis*, 340 U.S. at 592; *Egolf v. Commissioner*, 87 T.C. 34, 48 (1986); *Schultz v. Commissioner*, 59 T.C. 559, 564 (1973).

The partnerships misinterpret the claim of right doctrine. They argue that they could claim income and related tax credits from the alleged sales of LFG up until the rights of RTC or its successors under the LLA were determined by a final and unappealable judgment. To illustrate their mistake, we turn to *N. Am. Oil*, where the Supreme Court first articulated the doctrine. The case involved an oil field owned by the Federal Government and operated by the taxpayer, North American Oil. *N. Am. Oil Consol.*, 286 U.S. at 420-421. In 1916 the Government had ousted the taxpayer from possession of the oil field and appointed a receiver to operate the property and hold the income. *Id.* at 421. In 1917 a District Court had held that the taxpayer was entitled to the income, and the receiver paid the 1916 income to the taxpayer. *Id.* The decision had been affirmed in 1920 by the Court of Appeals, and the Supreme Court had dismissed the appeal in 1922. *Id.* In the subsequent litigation which led to the decision in *N. Am. Oil*, the issue became the year for which the taxpayer had to report the income for tax purposes. *Id.* at 420. The Supreme Court held that the taxpayer was required to include the 1916 income in its 1917 gross income because it was the first year in which it had a claim of right to the income. *Id.* at 423. No claim of right existed in 1916 because as of the end of the year, the taxpayer might never have received the money. *Id.* At the same time, inclusion for 1917 was required despite the pending Government

appeal which, if successful, would have required the return of the money to the receiver in a subsequent year. *Id.* at 424.

RTC's and Pontiac Trust's situation is the reverse of *N. Am. Oil*. RTC and Pontiac Trust had rights to the Pontiac landfill under the LLA and the derivative GRA up until the end of 2005. In 2006 Scattered continued to claim the rights under the Pontiac LLA. However, in June 2006 the bankruptcy court determined that no such rights existed because the LLA had expired according to its terms. In determining their income for 2006, RTC, Scattered, and Pontiac Trust were required to disregard any subsequent events, including pending appeals of the bankruptcy court order. *See Lewis*, 340 U.S. at 592. At the same time they could include any income received from their operations until the bankruptcy court entered its order under the claim of right doctrine. For the same reason, Pontiac Trust could not have claimed any income from the landfill for 2007.

The conduct of all the involved parties in 2006 is consistent with our discussion. Allied allowed RTC or its agents/contractors to operate gas-to-electricity equipment at the Pontiac landfill until June 13, 2006. RTC sold the electricity produced during that time to ComEd. However, RTC's contractors or agents removed all gas-to-electricity engines and related equipment from the site on or about June 16, 2006. After that, RTC was prohibited from operating at the Pontiac landfill. Any emitted LFG was either vented into the atmosphere or destroyed in flares.

Accordingly, we conclude that Pontiac Trust could claim FNS credits from the sales of LFG from the Pontiac landfill up until the date of the bankruptcy court order, June 13, 2006. However, after the bankruptcy court order Pontiac Trust no longer had any rights or claim of right in the LFG production facilities and was not entitled to FNS credits.

iii. *Lyons/McCook*

The bankruptcy court determined that the Lyons/McCook LLA terminated on January 31, 2007, because of RTC's failure to pay royalties to landfill owners. The partnerships argue that they were not parties to that issue and thus are not precluded from disputing the findings of the bankruptcy court. Yet they did not make any legal arguments to show that the bankruptcy court erred in its determination, and so

we deem this argument abandoned. See *Mendes v. Commissioner*, 121 T.C. 308, 313–314 (2003).

Further, the partnerships argue—similarly to the argument they make for the Pontiac landfill—that under *N. Am. Oil* they were required to report income from sales from the Lyons/McCook landfill even after the bankruptcy court decision. As in our discussion of Pontiac, we do not find any merit to this argument. We hold that Green Gas did not have a sufficient interest in facilities at the Lyons/McCook landfill starting April 17, 2007.³⁷

4. *Measuring LFG Production Output and LFG Sold*

a. *Overview*

The amount of FNS credit a taxpayer may claim depends on the barrel-of-oil equivalent of qualified fuels sold to an unrelated party production of which is attributable to the taxpayer. Sec. 45K(a).³⁸

Respondent alleges that the partnerships' computations of the LFG produced and sold are unreliable for a number of reasons and are insufficient to substantiate the amount of fuel sold and the FNS credits attributable to such sales. The partnerships, in turn, maintain that they kept voluminous records that, together with their witnesses' testimony, sufficiently substantiate the FNS credits they claimed. In the absence of any official guidance from Congress or the IRS on what they would consider acceptable substantiation methods, they invite us, at the very least, to estimate the amounts of FNS credits under the *Cohan* rule. See *Cohan v. Commissioner*, 39 F.2d 540, 543–544 (2d Cir. 1930). For the reasons set forth below, we decline the invitation.

³⁷We discuss FNS credit substantiation in the next section of this Opinion. As the discussion will show, Green Gas failed to substantiate sales of LFG for the period when the gas-to-electricity equipment at the Lyons/McCook landfill was shut down and is not entitled to FNS credits for the period starting in the middle of December 2005 to the date of the bankruptcy court order.

³⁸Although we have already established in the previous sections of the Opinion that the partnerships are not eligible for FNS credits in the amounts reported in their tax returns, we think it is necessary and important to discuss other requirements to give a full account of our impression of the evidence received at trial and to present a coherent picture of the transactions in question.

In general, deductions and tax credits are a matter of legislative grace. See *INDOPCO, Inc. v. Commissioner*, 503 U.S. 79, 84 (1992); *New Colonial Ice Co. v. Helvering*, 292 U.S. 435, 440 (1934); *United States v. McFerrin*, 570 F.3d 672, 675 (5th Cir. 2009) (“Tax credits are a matter of legislative grace, are only allowed as clearly provided for by statute, and are narrowly construed.”); *Suder v. Commissioner*, T.C. Memo. 2014–201, at *31. Taxpayers are required to retain records necessary to substantiate a claimed credit. See sec. 6001; sec. 1.6001–1(a), (e), Income Tax Regs. Absent any specific instructions, a taxpayer is not required to keep records in a particular manner so long as the records maintained substantiate his or her entitlement to the credit. *Suder v. Commissioner*, at *55.

Under *Cohan v. Commissioner*, 39 F.2d at 543–544, if a taxpayer claims a deduction or tax credit but cannot fully substantiate the expense underlying the deduction or tax credit, the Court may generally approximate the allowable amount, bearing heavily against the taxpayer whose inexactitude in substantiating the amount of the expense is of his own making. The Court must have some basis upon which to make its estimate, however, else the allowance would amount to “unguided largesse”. *Williams v. United States*, 245 F.2d 559, 560 (5th Cir. 1957); *Vanicek v. Commissioner*, 85 T.C. 731, 742–743 (1985).

The partnerships calculated FNS credits on the basis of the assumption that they sold all of the allegedly produced LFG to RTC.³⁹ For venting/flaring landfills they rely on

³⁹The partnerships also assumed that all of the LFG allegedly produced had sufficiently high methane content to be used as fuel. They claim that Dr. Williams by his testimony established that even unprocessed LFG from all the landfills at issue was of sufficient quality to be used as fuel. Dr. Williams, however, did not conduct independent samplings of LFG out of all landfills—and such samplings would have little probative value almost 10 years down the road because LFG composition and flow rates change throughout the lifecycle of a landfill. Dr. Williams relied on materials provided by the partnerships and they admitted that they often used estimates to measure methane content instead of actual sampling. Thus, we give little weight to Dr. Williams’ conclusion on this issue for the landfills where the partnerships used estimates for methane content or did not produce evidence of actual sampling performed during the years at issue. Dr. Williams’ conclusion was based at least in part on unreliable and insufficient data.

three primary methods to substantiate the amount of LFG produced and sold: site visit logs, LandGEM model results, and equipment ratings or air emission factors. They maintain that these methods, together with Mr. Connolly's testimony, are sufficient to substantiate the FNS credits. We disagree for a number of reasons.

For nonventing landfills, the partnerships rely on the amount of electricity sold to utility companies, increased by the amount of "parasitic load". We find the evidence on this issue sufficient to substantiate the amounts of FNS credits claimed. For the periods when gas-to-electricity equipment did not work on nonventing landfills, the partnerships used the same methods of substantiation as for venting/flaring landfills.

b. *The Partnerships' Site Visit Logs*

The partnerships introduced site visit logs for 18 landfills,⁴⁰ most of them venting/flaring landfills, except Congress and Pontiac. RTC's employees allegedly prepared these site visit logs during periodic visits to each landfill. At trial, Mr. Connolly, who did not prepare the logs himself or visit landfills regularly during the years at issue, was the only witness to testify about the logs.

Respondents raised numerous concerns about the reliability of the site visit logs. First, the partnerships had a financial incentive to report inflated numbers because the FNS credit depends on the quality and quantity of LFG produced and sold by a taxpayer. Second, they did not offer any testimony from RTC employees who prepared the site logs. Although two of them are now deceased, other employees

⁴⁰The partnerships produced site visit logs for the following landfills: Beecher (3 logs, covering only 2004), Bi-State (4 logs, covering only 2006 and 2007), Bloomington (4 logs, all for 2007), Columbus (2 logs for 2005–06 and chart readings for some days without gas flow rate indicated), Congress (numerous site visit logs), Elliott (1 site log for 2007), Gary (4 for 2004, 6 for 2006, 10 for 2007), GNOL (1 site log for 2007), Kewanee (1 for 2006, 20 for 2007), Lansing (1 site log for 2007), Litchfield (several site logs, most for 2004, 2 for the same date in 2006, 2 for 2007), New Haven (several logs for 2004, 1 for 2005, 5 for 2006, including 2 for the same date, 2 for 2007), Pontiac (numerous logs), Rosencranse (3 logs, 1 per 2005, 2006, and 2007), Taylor Ridge (several logs), Viola (1 log for 2006), Wheatland (14 logs, 12 for 2005, 2 for 2007), Wyandot (11 logs, only 1 for 2007).

who prepared site logs did not testify. Third, some of the logs were prepared using data provided by nonparty landfill operator employees. The Court does not have a way to verify such data or establish the credibility of the data providers. Fourth, Mr. Connolly, who was the only RTC employee who testified at trial, did not personally prepare the logs, was not present at the landfills at the time the logs were created, and had no means of independently verifying information in the logs. Mr. Connolly often substituted missing data based on his assumptions and extrapolated results over extended periods. Fifth, respondent argues that the data in many logs is statistically improbable because the logs report the same numbers over a long period. Finally, none of the site logs reflect any consideration of all the variables affecting LFG emissions, such as humidity, air temperature, season changes, changes in waste composition, and so on.

Dr. Williams testified that there are many types of meters on the market that measure accumulated gas, including some that are similar to gas meters used to measure consumption of gas at personal houses and to chart recorders. The partnerships and RTC never installed meters that recorded accumulated gas flow at any of the venting/flaring landfills. Mr. Connolly testified that a number of venting/flaring landfills had chart recorders, but Green Gas did not keep the chart records, with a few exceptions. For landfills with chart recorders, instead of using the specific measurements from the chart, which may vary greatly from day to day, Mr. Connolly used what he considered to be an average reading that he extrapolated over time and used in his FNS credit calculations.

After considering the record in these cases, we have the same concerns as respondent. Nine of the landfills have four logs or fewer, sometimes not for the years at issue, sometimes not covering the full period. For other landfills, the data reported is statistically improbable because gas flow and methane concentrations remain the same over long periods, sometimes even from year to year. Finally, we do not find Mr. Connolly's testimony on this issue reliable. Although Mr. Connolly had experience with the landfill industry, we are not persuaded that his estimates were reasonable in the light of RTC's financial situation, specifics of the LFG industry, and the general lack of corroborating evidence.

Under *Wichita Terminal Elevator Co. v. Commissioner*, 6 T.C. at 1165, a taxpayer's failure to provide otherwise available information leads to a presumption that such information would have actually been unfavorable if produced. It applies to the circumstances of these cases. The partnerships could have corroborated the site logs through testimony of other RTC employees or nonparty landfill site managers. Yet they chose not to. Although we admitted the site logs into evidence under the residual exception in rule 807(a) of Federal Rules of Evidence, we conclude that these logs, corroborated only by the self-serving testimony of Mr. Connolly, have little to no probative value and cannot serve as the basis upon which we can make a *Cohan* estimate. See *Williams v. United States*, 245 F.2d at 560; *Vanicek v. Commissioner*, 85 T.C. at 742–743.

c. Use of LandGEM To Estimate LFG Production

The partnerships maintain that their use of LandGEM to determine how much LFG they allegedly produced and sold is consistent with industry practices. Respondent argues that a model is only as good as the data used for the model and that LandGEM, by its design, cannot serve as a tool to measure production and sale of LFG. We agree with respondent.

LandGEM is indeed a well-recognized model that allows one to predict the landfill gas emission rates over time. LandGEM, however, is not designed to be a tool for monitoring or measuring gas production. As respondent noted, LandGEM provides estimates equivalent to determining how much oil is in an oilfield, not how much is extracted. LFG systems do not always capture 100% of LFG emissions. The percentage of LFG captured depends on a lot of factors, including the system design, and LandGEM does not account for that. In addition, the accuracy of LandGEM predictions depend on the quality and accuracy of the underlying data and assumptions.

The partnerships maintain that LandGEM estimates were prepared by outside firms, but the documents related to that work were not provided at trial. None of these firms testified at trial about the work they did and the processes and assumptions used. The partnerships' expert, Dr. Williams,

also did not opine on the accuracy of LandGEM predictions used by the partnerships.

Under the circumstances, we are not persuaded that LandGEM predictions, as used by the partnerships, could form a reliable basis for FNS tax credit estimates under the *Cohan* rule. The partnerships essentially invite us to take a leap of faith, and this we cannot do. *See Williams*, 245 F.2d at 560.

d. *Equipment Ratings and Air Emission Factors*

For some landfills, the partnerships used equipment ratings and the so-called air emission factors—0.5 cubic feet per minute per foot of perforated pipe to 1.5 cubic feet per minute per foot of perforated pipe—to determine the amount of LFG allegedly produced. Respondent argues that there is no evidence of the specific equipment ratings as to particular equipment or particular landfills. Respondent contends that the use of air emission factors is also an unreliable method of measuring the alleged production of LFG. We agree with respondent.

Mr. Connolly discussed equipment ratings with manufacturers' representatives, but they warned him that it is almost impossible to determine the flow without measuring well pressure. There is no evidence how RTC or the partnerships measured well pressure at landfills where they used equipment ratings and air emission factors. For the landfills that only vented LFG, Mr. Connolly assumed a flat emissions rate consistent with what he reported in air permitting documents. For landfills with flares, Mr. Connolly did not account for the time the flares were off. Mr. Connolly's computations also did not account for various factors affecting LFG emissions. Thus, Mr. Connolly basically eyeballed how much LFG was emitted from a particular landfill. Again, we do not see it as a reliable method of determining how much LFG was actually produced and sold at a particular landfill. It is impossible for us to make a *Cohan* estimate based on the record.

To conclude on this issue, we do not see evidence produced by the partnerships as sufficient to substantiate the alleged production and sale of LFG from venting/flaring landfills and nonventing landfills when gas-to-electricity equipment did not work. Thus, there is no basis for us to make a reasonable

estimate of the amounts of FNS credits that the partnerships could claim from these landfills.

For the Lyons/McCook landfill, the only nonventing landfill at issue where Green Gas had sufficient rights to LFG facilities, we hold that Green Gas did not properly substantiate FNS credits after the shutdown of the gas-to-electricity facility in mid-December 2005. Thus, Green Gas is not entitled to FNS credits with respect to the Lyons/McCook landfill for the period from mid-December 2005 to December 31, 2007. For the same reason, we hold that Pontiac Trust did not properly substantiate FNS credits after the shutdown of the gas-to-electricity facility in mid-June 2006.

5. Sales by the Partnerships

a. LFG Sales From Venting/Flaring Landfills

Section 45K(a)(2)(A) requires qualified fuel to be sold by a taxpayer to an unrelated buyer. The parties stipulated that RTC and the partnerships were not related parties for the purpose of FNS credit eligibility.⁴¹

Both the partnerships' and respondent's expert witnesses agreed that they are not aware of a commercial market for vented or flared LFG. The partnerships in their briefs cite one other instance where the parties agreed to buy/sell LFG that was subsequently vented or flared. Without opining on the substance of the transaction they cited, we do not find this example persuasive or instructive for the purpose of establishing that there was a commercial market for vented or flared LFG.

We agree with Dr. Benson and Dr. Williams that venting or flaring LFG is often done to comply with environmental regulations and is the cheapest way to safely dispose of LFG. The goal of environmental compliance, however, has nothing to do with the congressional purpose for enacting FNS credits, namely, to encourage production of energy from non-conventional fuels and reduce overdependence on imported energy.

Further, as we discussed in the previous part of this Opinion, it is impossible for us to estimate the amount of

⁴¹We are not unmindful of the fact that the governing bodies of both the partnerships and RTC had a significant overlap. Yet RTC's direct investment in Green Gas and Pontiac Trust was always de minimis.

LFG allegedly produced and sold from venting/flaring landfills.

For these reasons, we conclude that there were no qualifying sales of LFG during the years at issue from any of the venting/flaring landfills. Accordingly, we sustain respondent's determination that Green Gas is not entitled to FNS credits for the alleged sales of qualified fuel from venting/flaring landfills.

b. LFG Sales From Nonventing Landfills

As we noted in Part III.C.3 of this Opinion, the partnerships did not have the requisite rights in most of the nonventing landfills to claim FNS credits. For the landfills where they did have the requisite legal rights to the LFG facilities, the partnerships properly substantiated production and sales of LFG only for the periods when gas-to-electricity equipment was running and electricity was being sold to utility companies. However, because they did not properly substantiate the amount of LFG sold when gas-to-electricity equipment was not running, we sustain respondent's disallowance of FNS credits for those periods.

IV. Business Expense Deductions

A. Overview

The partnerships and respondent disagree on whether the partnerships can deduct certain expenses. The partnerships maintain that they have provided respondent with sufficient records to substantiate the expenses. Respondent claims that the records produced are too scant to serve as proper substantiation. We agree with respondent to the extent stated in this Opinion.

Deductions are a matter of legislative grace, and taxpayers must prove entitlement to any claimed deduction. Rule 142(a); *INDOPCO, Inc. v. Commissioner*, 503 U.S. at 84. A taxpayer must identify each deduction available, show that he or she has met all requirements therefor, and keep books or records that substantiate the expenses underlying the deduction. Sec. 6001; *Roberts v. Commissioner*, 62 T.C. 834, 836 (1974).

Section 162(a) allows taxpayers to deduct "all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business". Under that sec-

tion, an expenditure is deductible if it is: (1) an expense, (2) an ordinary expense, (3) a necessary expense, (4) paid (in the case of a cash method taxpayer) or incurred (in the case of an accrual method taxpayer) during the taxable year, and (5) made to carry on a trade or business. *See Commissioner v. Lincoln Sav. & Loan Ass'n*, 403 U.S. 345, 352–353 (1971); *Lychuk v. Commissioner*, 116 T.C. 374, 386 (2001). An ordinary expense is one that is common and acceptable in the taxpayer's particular business. *Welch v. Helvering*, 290 U.S. at 113–114. A necessary expense is an expense that is appropriate and helpful in carrying on the taxpayer's trade or business. *Heineman v. Commissioner*, 82 T.C. 538, 543 (1984).

B. Green Gas

On its tax returns for 2006 and 2007, Green Gas deducted O&M expenses of \$629,400 and \$496,800, respectively; consulting fees of \$19,800 and \$75,062, respectively; legal and professional fees of \$557,753 and \$680,213, respectively; and other expenses of \$153,064 and \$161,499, respectively. Respondent disallowed all of these deductions for lack of substantiation of the expenses.

1. O&M Expenses

Green Gas did not make any payments to RTC under the O&M agreements. Instead, Green Gas made payments, if any, to Chiplease, one of the DIP lenders. To substantiate the payments, the partnerships introduced O&M agreements, checks reflecting payments to Chiplease, certain Green Gas and RTC internal documents that purportedly substantiate the amounts paid, and testimony of Mr. Connolly and Mr. Nichols. As discussed above, we do not find their testimony credible and, accordingly, give it minimal weight.

We note that the partnerships failed to provide the Court with O&M agreements between RTC and Green Gas with respect to any of the nonventing landfills. We also do not find Mr. Nichols' and Mr. Connolly's testimony on the issue credible or helpful. Accordingly, we conclude that no O&M agreements existed between Green Gas and RTC with respect to nonventing landfills. Thus, Green Gas cannot deduct any O&M expenses related to these landfills.

Further, we note that the checks to Chiplease produced by the partnerships are for amounts that do not match the amounts of deductions claimed. The partnerships did not provide any explanation for the mismatches. Moreover, the checks that allegedly show payments do not have notations explaining their purpose. There is also no evidence showing that any payments were actually made, such as bank records, corresponding records of Chiplease, etc.

Under the circumstances, it would be a stretch to conclude that Green Gas is indeed entitled to deductions for O&M expenses under section 162(a). Although such expenses would normally be ordinary and necessary for a similar business, the partnerships failed to properly substantiate the deductions claimed and did not keep adequate records in this regard. Thus, we sustain respondent's determinations on this issue.

2. Consulting Fees

Mr. Nichols testified at trial that Green Gas had an oral consulting arrangement where Green Gas paid consultants to raise money for RTC and Green Gas projects. However, the only example of such work performed by consultants related to 2002. The partnerships failed to produce any evidence shedding light on what kind of consulting services Green Gas and upper-level partnerships paid for in the 2006 and 2007 tax years. Moreover, they failed to provide a credible explanation as to why the expenses were paid by other entities but deductions were claimed by Green Gas. Except for the self-serving testimony of the partnerships' witnesses, there is no corroborating evidence that would allow us to conclude that the consulting expenses claimed by Green Gas but actually paid by other entities had a legitimate business purpose or were ordinary and necessary expenses for Green Gas.⁴² Accordingly, Green Gas cannot deduct consulting expenses under section 162(a).

3. Legal and Professional Fees

As with the consulting fees, the record is bereft of any evidence that would allow us to conclude that the alleged "legal

⁴²We also note that for the 2007 tax year the amount claimed by Green Gas was a lot higher than the amount allegedly paid on Green Gas' behalf by one of the DIP lenders.

and professional fees” retained by Chuhak from the “investments” it solicited for the partnerships were ordinary and necessary business expenses under section 162(a). The letters from Chuhak to Mr. Nichols describe only one type of service provided by Chuhak: sale of FNS credits to interested investors. We find Mr. Nichols’ testimony that Chuhak provided a wide range of services to Green Gas not credible. Green Gas failed to provide any evidence corroborating this allegation such as engagement letters, invoices for the time billed by Chuhak attorneys, or correspondence relating to legal issues other than sales of FNS credits. It is also not clear why Green Gas claimed a deduction for legal fees attributable to alleged contributions to other entities. For these reasons, we agree with respondent’s determination on this issue.

4. *Miscellaneous Expenses*

Respondent disallowed deductions for several other miscellaneous expenses allegedly incurred by Green Gas for the 2006 and 2007 tax years. The disallowed expenses include bank and wire fees, annual report fees, management and accounting fees, and trustee’s fees.

Respondent conceded the bank and wire fee for 2006 in full and for 2007 to the extent of \$112. The partnerships introduced only Green Gas’ expense report for 2007 to substantiate the bank fee. An internal self-serving report, without more, is insufficient to substantiate an expense. Thus, we agree with respondent in that Green Gas is not entitled to a deduction in excess of the \$112 respondent conceded for bank and wire fees for 2007.

Next, to substantiate expenses incurred for annual report fees, management and accounting fees, and trustee’s fees, Green Gas produced its internal expense reports and checks allegedly showing payments for various amounts either by Green Gas or other entities, as well as some RTC records. Mr. Nichols testified at trial as to the nature of the expenses and how they were paid. However, Green Gas failed to produce any written agreements as to management and accounting fees or trustee’s fees. Mr. Nichols testified that upper-level entities paid some of these expenses according to which entity had the cash at the time. No written agreements corroborate this statement.

With respect to the annual report fees, we find that, on the basis of the record, Green Gas indeed paid fees for annual reports due to the State of Delaware. A deduction for these fees should be allowed to the extent paid directly by Green Gas. According to the checks in the record, Green Gas paid \$1,000 in 2006 and \$1,154 in 2007 to the Delaware secretary of state.

With respect to management and accounting fees and trustee's fees, we conclude on the basis of the record that Green Gas may deduct these fees to the extent paid directly by Green Gas. We are satisfied that these expenses were ordinary and necessary for Green Gas. Thus, Green Gas can deduct management and accounting fees of \$31,000 for 2006 and \$40,600 for 2007. Green Gas can deduct trustee's fees of \$15,500 for 2006 and \$32,400 for 2007. The rest of the fees are nondeductible because the partnerships failed to provide credible evidence that the payments should be attributed to Green Gas.

C. Pontiac Trust

On its tax returns for the 2006 and 2007 tax years, Pontiac Trust deducted expenses under O&M agreements of \$328,800 for each year and lease expenses of \$395,571 and \$383,508, respectively.

To substantiate the expenses, the partnerships introduced into evidence O&M and GRA contracts between Pontiac Trust and RTC, as well as computations reflecting netting arrangements between Pontiac Trust and RTC. Because of the nature of the netting arrangements, Pontiac Trust did not make any actual payments to RTC in 2006 and 2007. Any payments from Pontiac Trust would go directly to the DIP lenders. Pontiac Trust did not introduce into evidence any records reflecting actual payments, such as checks, bank statements, or other records.

Both lease and O&M expenses normally would be treated as ordinary and necessary for running a business under section 162(a). However, because of a dispute with landfill owners, Pontiac Trust could not operate gas-to-electricity equipment it had on site for at least a portion of the 2006 tax year. All the portable equipment was removed from the site on or before June 16, 2006. RTC employees were prohibited from entering the landfill after that date.

After reviewing the record, we are not persuaded that any O&M and lease expenses incurred after June 16, 2006, should be treated as ordinary and necessary under section 162(a). Whatever reasons may have existed before June 16, 2006, it was clear that it was not in the best business interest of Pontiac Trust to continue paying these expenses after the landfill owners expressly prohibited any gas-to-electricity operations at the landfill and the bankruptcy court concluded the Pontiac LLA had expired and could not be assumed.

Moreover, there is no evidence that Pontiac Trust actually paid any such expenses to RTC or the DIP lenders in the 2006 or 2007 tax year except the partnerships' witnesses' self-serving testimony. No promissory notes or written agreement reflect Pontiac Trust's debt with respect to these expenses. Thus, we conclude that Pontiac Trust is not entitled to a deduction of O&M or lease expenses incurred before June 16, 2006, under section 162(a). We sustain respondent's determinations disallowing Pontiac Trust deductions for business expenses for the 2006 and 2007 tax years.

V. Distributive Share Determinations

In his opening brief, respondent requested that we sustain respondent's determination that Green Gas' partners' distributive shares as set forth in the FPAA issued to Green Gas for the 2006 and 2007 tax years are correct. The partnerships mentioned this issue in one of the footnotes in their opening brief, but did not present any legal arguments on this issue or request to supplement their briefs.

The FPAA issued to Green Gas for the 2006 and 2007 tax years states:

6. It is determined that the partnership's distribution of ordinary income or loss in 2006 and 2007 does not clearly reflect the facts and circumstances of each partner's distributive share under IRC 704. During the audit, the partnership agreement (or equivalent) was requested and not provided. Schedule K-1s list the ownership percentages as "various" with no percentage allocation for profits, losses, and credits. Losses in 2006 and 2007, however, do not appear to be shared equally and do not reflect the partnership's losses in each respective year. Therefore, in the absence of a proper allocation under IRC 704(b), the distributive share of each partner is determined to be as follows:

<i>Partner</i>	<i>Interest</i>
Methane Bio, LLC	53.6282%
Methane Green, LLC	18.3286%
Methane Blue, LLC	28.0433%

Green Gas raised this issue in its petition for the case at docket No. 14409–10. However, Green Gas did not introduce any evidence to refute respondent’s distributive share determinations or present any legal arguments on this matter. We therefore deem any such argument to be conceded. *See Mendes v. Commissioner*, 121 T.C. at 313–314 (holding that arguments not addressed in brief may be considered abandoned). Accordingly, we uphold respondent’s distributive share determinations as reflected in the FPAA issued to Green Gas for the 2006 and 2007 tax years.

VI. Section 6662(a) Penalties

A. Overview

Respondent asserted accuracy-related penalties under section 6662(a) against both partnerships for the 2006 and 2007 tax years. Respondent did not assert a section 6662(a) penalty against Green Gas for 2005.

Section 6662(a) and (b)(1) and (2) imposes a 20% penalty on an underpayment of tax attributable to a substantial understatement of income tax or to negligence or disregard of rules or regulations. A taxpayer can avoid the penalty upon a showing that the taxpayer had reasonable cause and acted in good faith. Sec. 6664(c)(1).

Section 7491(c) imposes the burden of production on the Commissioner with respect to the liability of an individual for any penalty. This burden requires that respondent produce sufficient evidence indicating that it is appropriate to impose either or both penalties in these cases. *Higbee v. Commissioner*, 116 T.C. 438, 446–447 (2001). “[Section 7491(c)] is not entirely instructive whether that section imposes the initial burden on the Commissioner when the taxpayer is an entity that has petitioned this Court under section 6226.” *Palmer Ranch Holdings, Ltd. v. Commissioner*, T.C. Memo. 2014–79, at *43, *aff’d in part, rev’d in part, and remanded*, 812 F.3d 982 (11th Cir. 2016). Even if we assume that respondent has the initial burden of production here, we are satisfied that respondent has met that burden. *See Palm*

Canyon X Invs., LLC v. Commissioner, T.C. Memo. 2009–288. Once the Commissioner meets his burden of production, the taxpayer must come forward with persuasive evidence that the Commissioner’s determination is incorrect or that the taxpayer had reasonable cause or substantial authority for the position. See *Higbee v. Commissioner*, 116 T.C. at 446–447.

The partnerships argue that section 6662(a) is inapplicable because there was no substantial understatement of income tax or negligence or disregard of rules and regulations. They assert that they had substantial authority for their positions, the items in question were properly disclosed and substantiated, and they had a reasonable basis for the tax treatment of FNS credits and business expenses. Finally, they assert, they reasonably relied in good faith on the advice of their tax advisers, Chuhak, in structuring and reporting the transactions at issue.

We do not need to address the issue of substantial understatement and all of the potential defenses raised by the partnerships. It does not matter whether they had substantial authority for claiming the FNS credits or properly disclosed the transaction, because they failed to properly substantiate FNS credits and business expense deductions claimed on their tax returns. See, e.g., *Callender v. Commissioner*, T.C. Memo. 2016–68, at *9–*14. Thus, we address only the issue of negligence and whether they had reasonable cause and acted in good faith.

B. Negligence and Disregard of Rules and Regulations

Section 1.6662–3(b)(1), Income Tax Regs., defines “negligence” as follows:

The term “negligence” includes any failure to make a reasonable attempt to comply with the provisions of the internal revenue laws or to exercise ordinary and reasonable care in the preparation of a tax return. “Negligence” also includes any failure by the taxpayer to keep adequate books and records or to substantiate items properly. * * *

We often find that a taxpayer was negligent when the taxpayer fails to make a reasonable attempt to ascertain the correctness of a deduction, credit, or exclusion on a return which would seem to a reasonable and prudent person to be “too good to be true” under the circumstances. See, e.g., *Our Country Home Enters., Inc. v. Commissioner*, 145 T.C. 1, 63

(2015); *see also* sec. 1.6662–3(b)(1)(ii), Income Tax Regs. Disregard includes any careless, reckless, or intentional disregard. *See* sec. 6662(c).

The partnerships allege that they had a reasonable basis as to the disallowed FNS credits and business expense deductions. *See* sec. 1.6662–3(b)(1), Income Tax Regs. Here, we do not need to engage in a lengthy discussion as to whether the partnerships had a reasonable basis for their tax positions. They were negligent in not keeping adequate books and records showing that they had sufficient rights in the landfills at issue and failed to substantiate the FNS credits and business expense deductions to the extent discussed in this Opinion.

Mr. Connolly alluded in his testimony to the fact that some of the signed agreements related to these transactions were stolen by Mr. Calvert, president of RTC until 2001, when he left the company. We note that this happened long before the years at issue and does not explain problems with the partnerships' books and records. Thus, the partnerships were negligent because they failed to make a reasonable effort to comply with the provisions of the Code and the regulations requiring taxpayers to keep adequate books and records. *See* sec. 6001; sec. 1.6001–1(a), (e), Income Tax Regs.

C. Reasonable Cause and Good Faith, Reliance on Tax Professionals

The partnerships assert that they reasonably relied on the advice of their tax counsel, Chuhak, in structuring the transactions and preparing tax returns.

“The determination of whether a taxpayer acted with reasonable cause and in good faith is made on a case-by-case basis, taking into account all pertinent facts and circumstances.” Sec. 1.6664–4(b)(1), Income Tax Regs. “Generally, the most important factor is the extent of the taxpayer’s effort to assess the taxpayer’s proper tax liability.” *Id.* “Reasonable cause requires that the taxpayer have exercised ordinary business care and prudence as to the disputed item.” *Neonatology Assocs., P.A. v. Commissioner*, 115 T.C. at 98 (citing *United States v. Boyle*, 469 U.S. 241 (1985), *Hatfried, Inc. v. Commissioner*, 162 F.2d 628, 635 (3d Cir. 1947), *Girard Inv. Co. v. Commissioner*, 122 F.2d 843, 848

(3d Cir. 1941), and *Estate of Young v. Commissioner*, 110 T.C. 297, 317 (1998)).

“For partnerships, * * * [the Court] inquire[s] into a taxpayer’s reasonable cause and good faith, or lack thereof, at the partnership level, taking into account the state of mind of the general partner.” *Buyuk, LLC v. Commissioner*, T.C. Memo. 2013–253, at *87 (citing *New Millennium Trading, LLC v. Commissioner*, 131 T.C. 275, 279–280 (2008)).

Reliance on a professional tax adviser does not automatically establish reasonable cause and good faith. Sec. 1.6664–4(b)(1), Income Tax Regs. Instead, all facts and circumstances must be taken into account. *Id.* para. (c)(1).

To prove that his reliance on advice of a tax professional constitutes reasonable cause, the taxpayer must prove by a preponderance of the evidence that he meets the following three requirements: (1) the adviser was a competent professional who had sufficient expertise to justify reliance, (2) the taxpayer provided necessary and accurate information to the adviser, and (3) the taxpayer actually relied in good faith on the adviser’s judgment. *Neonatology Assocs., P.A. v. Commissioner*, 115 T.C. at 99. Reliance may be unreasonable when it is placed upon insiders, promoters, or their offering materials, or when the person relied upon has an inherent conflict of interest that the taxpayer knew or should have known about. *Id.* at 98.

Both partnerships claim that they reasonably relied on the tax advice of Chuhak. Yet they did not receive any opinion letters from Chuhak or from Freeborn & Peters. As respondent pointed out, the record is devoid of evidence that they received any written advice on tax issues from anyone. Mr. Nichols vaguely testified at trial that Chuhak advised the partnerships on tax matters, but they chose not to call any witnesses to elaborate on the extent of such advice or specific issues that were discussed. Under *Wichita Terminal Elevator Co. v. Commissioner*, 6 T.C. at 1165, we conclude that such testimony would have been harmful to the partnerships.

The record is equally devoid of information about what, if anything, the partnerships gave to their tax adviser to use in rendering any advice. Mr. Nichols testified that he sent FNS computations prepared by Mr. Connolly to Chuhak to use in preparing tax returns. It is unknown, however,

whether Chuhak advised the partnerships on whether the computations were correct or properly substantiated.

Finally, in several letters from Mr. Stern, an attorney with Chuhak, to Mr. Nichols, Mr. Stern referred to Chuhak's sales of FNS credits to investors in exchange for capital contributions to upper-level partnerships with stakes in Green Gas and Pontiac Trust. Chuhak retained about 50% of the "contributions" as payment for its fees and legal services although there are no invoices or bills from Chuhak in the record to detail what kind of services were in fact provided to the partnerships. This demonstrates that Chuhak was a promoter of the scheme and likely had a conflict of interest because of representing both "investors" and the partnerships in these "sales". Any reliance on Chuhak's advice by the partnerships under the circumstances would be unreasonable and not in good faith under *Neonatology Assocs.*

For these reasons, we hold that the partnerships have failed to demonstrate that they had reasonable cause and acted in good faith in relying on their tax counsel under *Neonatology Assocs.* They are liable for penalties under section 6662(a) for 2006 and 2007.

VII. *Conclusion*

We have considered all of the arguments that the partnerships made, and to the extent not discussed above, conclude that those arguments not discussed herein are irrelevant, moot, or without merit. We have considered respondent's arguments only to the extent stated herein.

To reflect the foregoing and concessions by respondent,

An appropriate order will be issued, and decisions will be entered under Rule 155.

