

STATE OF NEW YORK

DIVISION OF TAX APPEALS

In the Matter of the Petitions :
of :
ENERGY NUCLEAR OPERATIONS, INC., : DETERMINATION
ENERGY NUCLEAR FITZPATRICK, LLC, : DTA NOS. 826017,
ENERGY NUCLEAR INDIAN POINT 3, LLC, : 826018, 826019,
AND ENERGY NUCLEAR INDIAN POINT 2, LLC : AND 826020
: :
for Revision of Determinations or for Refund of Sales and :
Use Taxes under Articles 28 and 29 of the Tax Law for :
the Period December 1, 2004 through February 28, 2010.

Petitioners, Entergy Nuclear Operations, Inc., Entergy Nuclear Fitzpatrick, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Indian Point 2, LLC, filed petitions for revision of determinations or for refund of sales and use taxes under Articles 28 and 29 of the Tax Law for the period December 1, 2004 through February 28, 2010.

A hearing was held before Barbara J. Russo, Administrative Law Judge, in Albany, New York, on April 7, 2015 at 9:30 A.M., with all briefs to be submitted by August 11, 2015, which date began the six-month period for the issuance of this determination.

Petitioners appeared by Hodgson Russ, LLP (Christopher L. Doyle, Esq., of counsel). The Division of Taxation appeared by Amanda Hiller, Esq. (Anita Luckina, Esq., of counsel).

ISSUES

I. Whether petitioners' purchase and associated installation, repair, maintenance and/or service charges of step-up transformers are exempt from sales and use taxes pursuant to Tax Law §§ 1115(a)(12) and 1105-B(b).

II. Whether petitioners have established reasonable cause for the abatement of penalties.

FINDINGS OF FACT¹

Petitioners - Entergy Nuclear Operations

1. For the tax period December 1, 2004 through February 28, 2010 (the Audit Period), Entergy Nuclear Operations, Inc. (ENO), was a wholly-owned or indirect subsidiary of Entergy Corporation (Entergy). Entergy is the parent of a group of entities engaged in the business of the production and sale of electricity. In the southern United States, the Entergy business units operate as vertically integrated utilities. In the northeastern United States, the business units produce electricity and sell it to wholesalers.

2. ENO operates, supports, and provides management services to nuclear power plants owned by other Entergy affiliates in various locations throughout the United States.

3. Three of Entergy's nuclear power plants, two at the Indian Point Energy Center and the James A. Fitzpatrick Nuclear Power Plant, are located in New York State. The power production facilities located at these locations are owned by other Entergy affiliates who are also petitioners in this matter.

Entergy Nuclear Indian Point 2

4. During the Audit Period, Entergy Nuclear Indian Point 2, LLC (IP2), owned and operated the Unit 2 power-production facility located at the Indian Point Energy Center in Buchanan, New York (Unit 2).

¹ The parties executed and submitted a Stipulation of Facts setting forth 119 numbered stipulated facts and including 7 agreed-upon exhibits. The stipulated facts are substantially incorporated herein and have been condensed and renumbered as Findings of Fact 1 through 112.

5. Unit 2 produces electricity for sale exclusively to the New York Independent Service Operator (the NYISO), which operates New York's wholesale market for electricity, and to utilities and other wholesale purchasers like Consolidated Edison of New York, Inc. (ConEd).

6. All of the electricity sold by IP2 is delivered by IP2 at a voltage of approximately 345 kilovolts (345 kV) whether it is sold to the NYISO, utilities, or any other wholesale purchaser.²

Entergy Nuclear Indian Point 3

7. During the Audit Period, Entergy Nuclear Indian Point 3, LLC (IP3), owned and operated the Unit 3 power-production facility located at the Indian Point Energy Center in Buchanan, New York (Unit 3).

8. Unit 3 produces electricity for sale exclusively to the NYISO, utilities, and other wholesale purchasers like ConEd.

9. All of the electricity sold by IP3 is delivered by IP3 at a voltage of approximately 345 kV whether it is sold to the NYISO, utilities, or any other wholesale purchaser.³

Entergy Nuclear Fitzpatrick

10. During the Audit Period, Entergy Nuclear Fitzpatrick, LLC (EnFitz), owned and operated the James A. Fitzpatrick Nuclear Power Plant (Fitzpatrick), which is a power-production facility located in Scriba, New York.

11. Fitzpatrick produces electricity for sale exclusively to the NYISO, utilities, and other wholesale purchasers like ConEd.

² 345 kV is the nominal value at which petitioners' electricity must be transferred to the transmission system. The actual voltage delivered to the transmission system may vary, however, within plus or minus 5 percent of that amount.

³ See footnote 2.

12. All of the electricity sold by EnFitz is delivered by IP3 at a voltage of approximately 345 kV whether it is sold to the NYISO, utilities, or any other wholesale purchaser.⁴

Procedural History

ENO

13. In or about April 2008, the Audit Division of the New York State Department of Taxation and Finance (the Division) commenced a sales and use tax field audit of ENO's books and records for the period December 1, 2004 through November 30, 2008.

14. In or about October 2010, the Division updated the sales and use tax field audit of ENO's books and records to include the Audit Period.

15. On March 1, 2012, the Division, based upon the results of the audit, issued Notice of Determination L-037352302 to ENO asserting additional tax due for the Audit Period in the amount of \$1,180,487.72, plus penalty and interest, less a credit in the amount of \$691,512.01.

16. On February 14, 2012, ENO filed an Application for Credit or Refund of Sales or Use Tax (AU-11), Refund #2012-03-1169, for the Audit Period in the amount of \$1,140,393.37.

17. ENO's Refund #2012-03-1169 was approved in the amount of \$691,512.01 and denied in the amount of \$448,881.36.

18. The Bureau of Conciliation and Mediation Services (BCMS) sustained the Notice of Determination by Conciliation Order dated September 6, 2013.

19. On December 6, 2013, the Division and ENO executed a Closing Agreement regarding Notice of Determination L-037352302 and Refund #2012-03-1169 resulting in a remaining net tax due for the Audit Period in the amount of \$136,024.92, plus penalty and

⁴ See footnote 2.

interest. The remaining liability is the subject of this matter and turns on the proper sales tax treatment of ENO's purchases and installation, maintenance and/or repair services for step-up transformers.⁵

IP2

20. In or about April 2008, the Division commenced a sales and use tax field audit of IP2's books and records for the period December 1, 2004 through November 30, 2008.

21. In or about November 2010, the Division updated the sales and use tax field audit of IP2's books and records to include the Audit Period.

22. On May 29, 2012, the Division, based upon the results of the audit, issued a Notice of Determination L-037912000 to IP2 asserting additional tax due for the Audit Period in the amount of \$1,655,565.24, plus penalty and interest, less a credit in the amount of \$1,397,759.80.

23. On May 21, 2012, IP2 filed an Application for Credit or Refund of Sales or Use Tax (AU-11), Refund #2012-05-0787, for the Audit Period in the amount of \$1,463,651.61.

24. IP2's Refund #2012-05-0787 was approved in the amount of \$1,264,210.41 and denied in the amount of \$199,351.20.

25. IP2 filed an additional Application for Credit or Refund of Sales or Use Tax (AU-11), Refund #2009-08-0893, in the amount of \$133,549.39, which was approved in full.

26. BCMS sustained the Notice of Determination by Conciliation Order dated September 6, 2013.

⁵ The issue of the proper sales tax treatment of certain waste transportation, treatment, and disposal services purchases by petitioners was resolved prior to the hearing.

27. On December 6, 2013, the Division and IP2 executed a Closing Agreement regarding Notices of Determination L-037912000 and L-039546865⁶ and Refund #2012-05-0787 resulting in a remaining net tax due for the Audit Period in the amount of \$576,597.65, plus penalty and interest. The remaining liability is the subject of this matter and turns on the proper sales tax treatment of IP2's purchases of step-up transformers and installation, maintenance and/or repair services for step-up transformers.⁷

IP3

28. In or about April 2008, the Division commenced a sales and use tax field audit of IP3's books and records for the period December 1, 2004 through November 30, 2008.

29. In or about November 2010, the Division updated the sales and use tax field audit of IP3's books and records to include the Audit Period.

30. On May 31, 2012, the Division, based upon the results of the audit, issued a Notice of Determination L-037955584 to IP3 asserting additional tax due for the Audit Period in the amount of \$3,571,089.64, plus penalty and interest, less a credit in the amount of \$1,217,625.33.

31. On May 21, 2012, IP3 filed an Application for Credit or Refund of Sales or Use Tax (AU-11), Refund #2012-05-0786, for the Audit Period in the amount of \$1,217,922.66.

32. IP3's Refund #2012-05-0786 was approved in the amount of \$1,217,625.33 and denied in the amount of \$297.33.

33. BCMS sustained the Notice of Determination by Conciliation Order dated September 6, 2013.

⁶ Notice number L-039546865 was not at issue in these proceedings.

⁷ See footnote 5.

34. On December 6, 2013, the Division and IP3 executed a Closing Agreement regarding Notice of Determination L-037955584 and Refund #2012-05-0786 resulting in a remaining net tax due for the Audit Period in the amount of \$1,138,652.17, plus penalty and interest. The remaining liability is the subject of this matter and turns on the proper sales tax treatment of IP3's purchases of step-transformers and installation, maintenance and/or repair services for step-up transformers.⁸

EnFitz

35. In or about October 2008, the Division commenced a sales and use tax field audit of EnFitz's books and records for the period December 1, 2004 through November 30, 2008.

36. In or about October 2010, the Division updated the sales and use tax field audit of EnFitz's books and records to include the Audit Period.

37. On May 27, 2012, the Division, based upon the results of the audit, issued a Notice of Determination L-037346748 to EnFitz asserting additional tax due for the Audit Period in the amount of \$3,640,091.68, plus penalty and interest, less a credit in the amount of \$1,694,340.24.

38. On February 16, 2012, EnFitz filed an Application for Credit or Refund of Sales or Use Tax (AU-11), Refund #2012-03-1168, for the Audit Period in the amount of \$2,463,401.94.

39. EnFitz's Refund #2012-03-1168 was approved in the amount of \$1,694,340.24 and denied in the amount of \$769,061.70.

40. BCMS sustained the Notice of Determination by Conciliation Order dated September 6, 2013.

⁸ See footnote 5.

41. On December 6, 2013, the Division and EnFitz executed a Closing Agreement regarding Notice of Determination L-037346748 and Refund #2012-03-1168 resulting in a remaining net tax due for the Audit Period in the amount of \$1,378,280.47, plus penalty and interest. The remaining liability is the subject of this matter and turns on the proper sales tax treatment of Enfitz's purchases of step-transformers and installation, maintenance and/or repair services for step-up transformers.⁹

Selling Electricity in New York

42. Prior to the 1990s, New York's private and municipal utilities and public power authorities owned all aspects of New York's electric system including generating plants, the transmission systems and distribution systems.

43. A nationwide movement to restructure the electricity industry took place in the 1990s. As a result, private utilities were encouraged to sell generating facilities to third parties, and to invest the administration of wholesale markets (i.e., sales by generators to traders, energy service companies or distribution companies [utilities] and purchases by distribution companies and energy service companies from generators or traders) and to oversee New York's electricity transmissions system in independent entities.

44. In 1998, the Federal Energy Regulatory Commission (FERC) authorized the creation of the NYISO as the independent entity to manage New York's wholesale market for electricity and oversee New York's electricity transmission system.

45. The NYISO is a not-for-profit corporation responsible for the operational control of New York State's bulk transmission system and the administration of day-ahead and spot markets for the wholesale trading of electricity, capacity, and related ancillary services.

⁹ See footnote 5.

46. The transmission system is a series of high-voltage lines and interconnections, and the NYISO oversees the use and operation of the transmission system to transmit electricity received from producers like Unit 2, Unit 3, and Fitzpatrick to the wholesale purchasers and the NYISO that are the only customers of IP2, IP3, and EnFitz. The transmission system is owned by various transmission companies, including the New York Power Authority and ConEd.

47. All of the electricity produced for sale by Unit 2, Unit 3, and Fitzpatrick is input into the transmission system operated by the NYISO.

48. The voltage level at which a particular generation facility delivers power to the transmission system is dependent on the interconnection configuration where it delivers the power and, therefore, can be considered case-specific. Unit 2, Unit 3, and Fitzpatrick are all connected to the transmission system and deliver power at the 345 kV level. The voltage of the electricity in the transmission system is controlled by the NYISO.

49. Because the transmission system, which is administered by the NYISO, operates at 345 kV at the locations where Unit 2, Unit 3, and Fitzpatrick interconnect, the electricity delivered to the transmission system, and thus petitioners' customers, must achieve an approximate voltage of 345 kV before it may be input into the transmission system. This requirement is determined by the NYISO and the entities that own the transmission system.

50. Step-up transformers may be owned and used to step-up electricity delivered to the transmission system by either or both receiving utilities and power production facilities. The step-up transformers at issue in this instance are owned by IP2, IP3, and EnFitz.

How Petitioners Produce Electricity -

The production of electricity generally

51. At nuclear power plants such as those owned by petitioners, different forms of energy are converted into electrical energy. Nuclear fission creates heat, which causes water to turn into steam. The steam is directed toward a steam turbine, where the kinetic energy of the steam turns the turbine. The turbine shaft turns an armature within a magnetic field. The relative motion of a number of conductive wires on the armature within the magnetic field causes electrons in the wires to move (a flow of electricity). At each point where there is a conversion of energy from one form to another at the power plant, the amount of energy remains the same, except for unwanted losses.

52. Electric power is the rate at which electrical energy is being used (or, in the case of a power plant, produced). Electric power can be calculated using the equation $P = VI$, where P is power in watts, V is voltage in volts, and I is current in amperes or “amps.” One volt times one ampere equals one watt of power. The power in a power line with 120 volts and 8,333 amperes of current will be 1 million watts (or one megawatt), but there will also be one megawatt of power if there are 8.333 amps of current flowing in an electrical circuit with 120,000 volts.

53. Electrical energy can be calculated using the equation $E = Pt$, where E is energy in joules, P is power in watts, and t is time in seconds. If t is expressed in hours, E will be measured in watt-hours. A kilowatt-hour of electrical energy is not necessarily the amount of energy a consumer will use in an hour’s time; a kilowatt-hour of electrical energy could actually be used within a couple of minutes or over several hours.

54. The movement of electrons as an electric current in response to voltage is how electricity is conveyed from one point to another in an electrical circuit. The source of that

electricity is the electric generator, and the energy always flows in one direction, from the source to the load. The “load” is the device that uses the electrical energy, e.g., a table lamp.

55. The flow of electrons is “endowed with voltage” or the potential to do work in the generator at a power plant.

56. Voltage is the work needed to move a charge from one location to another, and there is nothing about the concept that says the electron changes character, it just changes position. Dropping a rock changes its position because it is under the influence of an external force, i.e., gravity. Likewise, an electron will move in response to an external force, i.e., voltage.

57. Under the laws of thermodynamics, energy cannot be created or destroyed. Beyond the generation plant there is no additional electrical energy created.

58. In a step-up transformer, the electric current going through the coils on the primary side will create a magnetic field that induces a voltage in the coils on the transformer’s secondary side, and that voltage causes current to flow on the secondary side. The voltage on the secondary side will be greater than the voltage on the primary side, but the current on the secondary side will be correspondingly lower than the current on the primary side, such that the amount of electrical energy is the same on both sides (except for any unwanted losses).

59. When a transformer’s primary and secondary sides are not physically connected there is electrical isolation, which means electrons from the primary side do not travel over to the secondary side.

60. In an electric power system, large amounts of electrical energy often need to be conveyed from the generating plants to customers over long distance.

61. When electricity is transmitted at higher voltages (and correspondingly lower current) there is less energy lost during transmission (as losses are proportional to the square of the

current), which makes delivery more efficient and economical for the wholesale purchasers. It is advantageous to a wholesale purchaser to transmit electricity over distances at higher voltages.

62. Petitioners do not transmit electricity over long distances. The interconnection facility where IP2 and IP3 deliver electricity to their customers is approximately one and one-half miles from the facilities that produce the electricity. The distance between the EnFitz facility and its interconnection is approximately one-third to one-half mile.

63. Different types of consumers take delivery of electricity at different voltages because some consumers consume more electricity over a given period of time than others. For example, a large manufacturing plant might receive electricity at 26,000 volts and a personal residence might receive electricity at 120 volts.

64. Petitioners are not utilities and never sell electricity for consumption by the purchasers.

65. Petitioners do not transmit electricity on the transmission system.

66. Once the electricity from petitioners' power-production facilities is delivered to the transmission system, petitioners have no control over where it goes and no knowledge of where it is ultimately delivered.

67. There is no energy creation taking place at a step-up transformer; electrical energy goes into the transformer's primary side and electrical energy in the same amount comes out of the secondary side (neglecting any unwanted losses).

68. Voltage levels do not represent a difference in amount of energy delivered. A kilowatt hour is a kilowatt hour regardless of the voltage. Voltage levels do not represent a difference in the amount of work a kilowatt of energy will perform. Voltage simply represents how much energy is delivered over time per ampere of current.

69. The electricity that enters the step-up transformer has different voltage and amperage than the electricity that exits the step-up transformer. Electricity enters a step-up transformer at relatively low voltage and high amperage and exits the step-up transformer at relatively high voltage and low amperage.

70. The amount of electrical energy generated by petitioners and the amount of petitioners' electrical energy that is consumed will be exactly equal at any point in time except for unwanted losses in the system.

71. The scientific and engineering principles underlying electric energy generation, energy conversion, voltage, electric current, and electrons have not changed since 1965.

72. Petitioners do not sell electrical energy to consumers; ENO does not sell any electricity and IP2, IP3, and EnFitz sell only to utilities and similar wholesale purchasers and to the NYISO.

73. The NYISO-administered transmission system and petitioners' power production facilities are integral to the delivery of electrical energy; however, petitioners do not own or control any aspect of the transmission system, and do not own any of the power being transmitted on that transmission system.

Unit 2

74. Commercial operations at Unit 2 first began in 1974. Unit 2 employs a Westinghouse Pressurized Water Reactor.

75. In a pressurized water reactor such as that located at Unit 2, the heating source is not directly nuclear fission, but is instead pressurized water that is super-heated in a reactor vessel. The pressurized water flows from the reactor vessel into a steam generator, where it heats feedwater, which eventually becomes steam. Since steam occupies a much larger volume than

water, the steam creates pressure. The pressure forces the steam out of the steam generator and toward a steam turbine. The steam pressure turns the turbine, which is attached to an electrical generator. As the generator turns it generates electricity at a voltage of 22 kV.

76. Once the 22 kV electricity leaves the generator, an isolated-phase bus carries the electricity to a step-up transformer which is immediately adjacent to the building housing the generator. The isolated-phase bus is a large electrical conductor.

77. The step-up transformer converts the electricity at 22 kV into electricity at 345 kV. The step-up transformers at Unit 2 are specifically designed to convert electricity to 345 kV and are unable to convert electricity to voltages that are significantly higher or lower.

78. The step-up transformers are securely located on the property of Unit 2; electricity exiting the step-up transformers is at approximately 345 kV, which is the only voltage suitable for the interconnection utilized by IP2. Electricity at 22 kV cannot enter the transmission system at this interconnection. If the step-up transformers fail, the Unit 2 generator unit shuts down and is unable to deliver electricity to the transmission system until the step-up transformer is repaired or replaced.

79. After the step-up process is complete, the electricity at 345 kV is delivered via power lines owned by IP2 to the Buchanan Substation. This group of lines is also known as a “feeder.” The distance between the step-up transformers and the Buchanan Substation is one to one and one-half miles.

80. The Buchanan Substation is owned and operated by ConEd and is part of the transmission system administered by the NYISO. The Buchanan Substation is located adjacent to the Indian Point Energy Center and has output revenue meters that measure and identify the electricity sold by IP2 to the NYISO and the utilities who are IP2's customers. The measuring

devices measure both voltage and current. These devices deliver the measurement readings to a control house that is owned by ConEd, and the readings are then sent telemetrically to IP2.

81. The Buchanan Substation includes the location of the interconnect to the NYISO-administered transmission system. Ownership of all of the electricity sold by IP2 transfers to the purchasers at this point.

Unit 3

82. Commercial operations at Unit 3 first began in 1976. Unit 3 employs a Westinghouse Pressurized Water Reactor.

83. The pressurized water reactor located in Unit 3 operates similarly to that in Unit 2 (*see* Finding of Fact 75).

84. Once the 22 kV electricity leaves the generator, an isolated-phase bus carries the electricity to a step-up transformer that is immediately adjacent to the building housing the generator.

85. The step-up transformer converts the electricity at 22 kV into electricity at 345 kV. The step-up transformers at Unit 3 are specifically designed to convert electricity to 345 kV and are unable to convert electricity to voltages significantly higher or lower.

86. The step-up transformers are securely located on the property of Unit 3; electricity exiting the step-up transformers is at 345 kV, which is the only voltage suitable for the interconnection utilized by IP3. Electricity at 22 kV cannot enter the transmission system at this interconnection. If the step-up transformers fail, the Unit 3 generator shuts down and is unable to deliver electricity to the transmission system until the step-up transformer is repaired or replaced.

87. After the step-up process is complete, the electricity at 345 kV is delivered via power lines owned by IP3 to the Buchanan Substation. This group of power lines is also known as a

“feeder.” The distance between the step-up transformers and the Buchanan Substation is one to one and one-half miles.

88. The Buchanan Substation is owned and operated by ConEd and is part of the transmission system administered by the NYISO. The Buchanan Substation is located adjacent to the Indian Point Energy Center and has output revenue meters that measure and identify the electricity sold by IP3 to the NYISO and the utilities who are IP3's customers. The measuring devices measure both voltage and current. These devices deliver the measurement readings to a control house that is owned by ConEd, and the readings are then sent telemetrically to IP3.

89. The Buchanan Substation is the location of the interconnect to the NYISO-administered transmission system. Ownership of all of the electricity sold by IP3 transfers to the purchasers at this point.

Fitzpatrick

90. Commercial operations at Fitzpatrick first began in 1975. Fitzpatrick employs a General Electric Boiling Water Reactor.

91. In a boiling water reactor such as that located at Fitzpatrick, nuclear fission generates the heat needed to boil feedwater, which eventually becomes steam. Since steam occupies a much larger volume than water, the steam creates pressure. The pressure forces the steam out of the reactor vessel and into steam lines that flow toward a steam turbine. The steam pressure turns the turbine, which is attached to an electrical generator. As the generator turns it generates electricity at a voltage of 24 kV.

92. Once the 24 kV electricity leaves the generator, an isolated-phase bus carries the electricity to a step-up transformer which is immediately adjacent to the building housing the generator. The isolated-phase bus is a large electrical conductor.

93. The step-up transformer converts the electricity at 24 kV into electricity at 345 kV. The step-up transformers at Fitzpatrick are specifically designed to convert electricity to 345 kV and are unable to convert electricity to voltages that are significantly higher or lower.

94. The step-up transformers are securely located on the property of EnFitz. Electricity exiting the step-up transformers is at 345 kV, which is the only voltage suitable for that interconnection utilized by EnFitz. Electricity at 24 kV cannot enter the transmission system at this interconnection. If the step-up transformers fail, the Fitzpatrick generator unit shuts down, and Fitzpatrick is unable to produce or deliver electricity to the transmission system until such time as the step-up transformers are repaired or replaced.

95. After the step-up process is complete, the electricity at 345 kV is delivered via a 345 kV bus owned by EnFitz to the Fitzpatrick switchyard. The 345 kV bus is a rigid aluminum pipe used to conduct electricity. The distance between the step-up transformers and the Fitzpatrick switchyard is approximately one-third to one-half of a mile.

96. The station bridge at the south end of the Fitzpatrick switchyard is the location of the interconnect to the NYISO-administered transmission system. Between the step-up transformers and the interconnect to the transmission system, there are various voltage measuring devices and current measuring devices that telemetrically report the amount of power that enters the transmission system. Ownership of all of the electricity produced and sold by EnFitz transfers to the purchasers at this interconnect point.

Transformer Installation, Replacement and Repair Services

97. During the Audit Period, ENO purchased installation services and maintenance services for the step-up transformers located at certain Entergy power plants including those based in New York State.

98. Entergy's tax group provided advice to petitioners to determine the taxability of transactions during the audit period. Entergy's tax group utilized a sales tax automation system for sales and use tax across all the states in which they operate. Petitioners' witness described their sales tax system as a "matrix" where services as well as property purchases are determined to be taxable or not, and coded as such. When an Entergy engineer, project manager or other individual enters an invoice, based on the code block information that is entered, it will filter through the matrix and a tax determination will be made.¹⁰ Based on this methodology, Entergy's tax group determined that petitioners' purchase, installation, maintenance and/or repair services of the step-up transformers were exempt from tax.

99. During proceedings with BCMS, petitioners' audit manager conducted additional research and reviewed *Matter of Zapco Energy Tactics Corp.* (Division of Tax Appeals, December 10, 1998). At the time petitioners' audit manager reviewed *Zapco*, he was aware that administrative law judge determinations are not precedential. Petitioners' audit manager also reviewed workpapers from a prior sales and use tax audit the Division had conducted of petitioners' business. From his review, he did not see that transformers were an issue in the prior audit.

100. The only remaining issues to be determined for ENO are the taxability of five invoices it paid for installation, maintenance, and/or repair of a step-up transformer in 2007 and related interest and penalties.

101. The parties stipulated that if the step-up transformers are not exempt under Tax Law § 1115(a)(12), then ENO owes additional tax of \$136,024.92.

¹⁰ There is no information in the record as to how the matrix was created or what information is contained within the matrix.

102. The parties stipulated that if the step-up transformers are exempt under Tax Law § 1115(a)(12), then the installation and replacement services are likewise exempt and ENO's liability for additional tax for the Audit Period is reduced by \$136,024.92.

103. During the Audit Period, IP2 contracted with third parties to supply, install, and/or repair the step-up transformers at Unit 2.

104. On audit, the Division identified invoices paid by IP2 for installation, maintenance and/or repair of step-up transformers and asserted additional sales tax.

105. The parties stipulated that if the step-up transformers are exempt under Tax Law § 1115(a)(12), then the repair services on the invoices are likewise exempt and the additional tax the Division asserts is owed by IP2 for the Audit Period is reduced by \$25,485.62.

106. During the Audit Period, IP3 contracted with third parties to supply, install, maintain and/or repair the step-up transformers at Unit 3.

107. On audit, the Division identified invoices paid by IP3 for the purchase, installation, maintenance and/or repair of step-up transformers and asserted additional tax.

108. The parties stipulated that if the step-up transformers are exempt under Tax Law § 1115(a)(12) then both the purchase of step-up transformers and the installation, maintenance and/or repair services are exempt and the additional tax the Division asserts as owed by IP3 for the Audit Period is reduced by \$623,298.20.

109. During the Audit Period, EnFitz purchased replacement step-up transformers for Fitzpatrick and contracted with third parties to install, maintain and/or repair the step-up transformers at Fitzpatrick.

110. On audit, the Division identified invoices paid by EnFitz for the purchase, installation, maintenance and/or repair of step-up transformers and asserted additional tax.

111. The parties stipulated that if the step-up transformers are exempt under Tax Law § 1115(a)(12) then both the purchase of step-up transformers and the installation, maintenance and/or repair services are exempt and the additional tax the Division asserts as owed by EnFitz for the Audit Period is reduced by \$753,643.76.

112. Petitioners submitted 42 proposed findings of fact. In accordance with State Administrative Procedure Act § 307(1) (SAPA), petitioners' proposed findings of fact 1 through 16, 18, 19, 22, 23, 25 through 28, 30 through 32, and 34 through 42 have been substantially adopted and incorporated herein.¹¹ Proposed findings of fact 17, 20, 21, 24, 29, and 33 have been modified to more accurately reflect the record and the stipulation of facts therein.

SUMMARY OF THE PARTIES' POSITIONS

113. Petitioners argue that their purchase, installation, repair, maintenance and/or service of step-up transformers are exempt from sales tax pursuant to Tax Law §§ 1115(a)(12) and 1105-B(b) because the step-up transformers are used directly and predominantly in the production of electricity for sale.

114. The Division argues that the step-up transformers are not exempt from sales tax because production of electricity stops at the generators and the step-up transformers are used only to increase the voltage of the electricity for delivery purposes.

CONCLUSIONS OF LAW

A. As the instant matter presents the issue of whether petitioners are entitled to an exemption from sales tax, it must first be noted that statutes and regulations authorizing exemptions from taxation are to be strictly and narrowly construed (*see Matter of International*

¹¹ The proposed facts as presented by petitioners have been renumbered as incorporated in the Findings of Fact set forth above.

Bar Assn. v. Tax Appeals Tribunal, 210 AD2d 819, 620 NYS2d 582 [1994], *lv denied* 85 NY2d 806, 627 NYS2d 323 [1995]; *Matter of Estate of Lever v. New York State Tax Commn.*, 144 AD2d 751, 535 NYS2d 158 [1988]). In order to qualify for the exemption, petitioners bear the burden of clearly proving entitlement to the exemption sought (*see Matter of Grace v. New York State Tax Commn.*, 37 NY2d 193, 371 NYS2d 715 [1975], *lv denied* 37 NY2d 193, 375 NYS2d 1027 [1975]).

B. Tax Law § 1115(a)(12) provides an exemption from sales and use tax for “[m]achinery or equipment for use or consumption directly and predominantly in the production of . . . electricity . . . for sale . . . by manufacturing, processing, generating, assembling, refining, mining or extracting” Production is defined by the Division’s regulations as follows:

“*Production* includes the production line of the plant starting with the handling and storage of raw materials at the plant site and continuing through the last step of production where the product is finished and packaged for sale” (20 NYCRR 528.13[b][1][ii]).

The regulations define “directly” in relevant part, as follows:

“(1) Directly means the machinery or equipment must, during the production phase of a process:

- (i) act upon or effect a change in material to form the product to be sold, or
- (ii) have an active causal relationship in the production of the product to be sold, or
- (iii) be used in the handling, storage, or conveyance of materials or the product to be sold, or
- (iv) be used to place the product to be sold in the package in which it will enter the stream of commerce” (20 NYCRR 528.13[c][1]).

With respect to the predominant use requirement for the exemption, the regulations provide that “[m]achinery or equipment is used predominantly in production, if over 50 percent of its use is directly in the production phase of a process” (20 NYCRR 528.13[c][4]).

C. In order to determine whether the step-up transformers are used directly in production of the product to be sold, it is first necessary to define petitioners’ product and thereby determine which activities are part of the production process. In determining whether the equipment meets the production requirement, it is necessary to give attention “to the nexus extant between the end product and the machinery or equipment so as to ascertain if the bond or union between them is such that it can be said that the machinery or equipment is necessary and essential to production” (*Matter of Rochester Independent Packer, Inc. v. Heckelman*, 83 Misc 2d 1064, 1065, 374 NYS2d 991 [1975]). The Division contends that petitioners’ product is energy in the form of electricity, and argues that production ends at the generator. The Division thus asserts that the step-up transformers do not qualify for the production exemption because petitioners can produce electricity without the step-up transformers, and contends that they are used only for delivery purposes in the distribution phase. Petitioners, in contrast, argue that their product is not merely electricity, but electricity at 345 kV. Petitioners maintain that the electricity must achieve a voltage of 345 kV before it may be sold to their customers.

D. The record in this matter shows that petitioners’ product is, as described by petitioners, electricity meeting a voltage requirement of 345 kV. The NYISO and the transmission companies that own the transmission system require that petitioners maintain a value of electricity at 345 kV (within plus or minus 5 percent of that value) in order to be transmitted at the specific interconnection points where petitioners’ final product is sold to its customers. The generators at Unit 2 and Unit 3 generate electricity at 22 kV, and at Fitzpatrick at 24 kV. The

electricity generated at those voltage levels cannot be sold to petitioners' customers at the interconnection point utilized between petitioners and their customers. The electricity that petitioners deliver to the transmission system must achieve a voltage of 345 kV before it may be sold to petitioners' customers and input into the transmission system. Electricity at 22 kV and 24 kV cannot enter the transmission system at petitioners' interconnection point, and thus cannot be sold to petitioners' customers at that voltage. If the step-up transformers fail, petitioners' generator units shut down, and Unit 2, Unit 3 and Fitzpatrick would be unable to produce or deliver electricity to the transmission system until such time as the step-up transformers are repaired or replaced.

Accordingly, considering that the NYISO and companies that own the transmission system require certain voltage levels, and that the electricity can only be sold to petitioners' customers at the interconnection point at the specific voltage levels, it is concluded that the voltage level of 345 kV is an integral part of petitioners' product (*see Matter of National Fuel Gas Distribution Corporation*, Tax Appeals Tribunal, March 14, 1991 [compressors used to reduce water and other impurities from gas were necessary for the gas to be marketed and thus were directly used in production of the gas]). Petitioners' product is not "finished and packaged for sale" (20 NYCRR 528.13[b][1][ii]) until such time as it reaches the required voltage levels.

Having concluded that voltage at 345 kV is part of petitioners' product, it follows that the step-up transformers were used directly in the production of that product since the operation of the step-up transformers achieves the required voltage. The record shows that the use of the step-up transformers is a necessary part of petitioners' closed, integrated, and dynamic process of producing electricity meeting mandated voltage levels (*see Matter of Niagara Mohawk Power Corporation v. Wanamaker*, 286 App Div 446, 144 NYS2d 458 [1955], *affd* 2 NY2d 764, 157

NYS2d 972 [1956]). Indeed, the “entire use” of the step-up transformers is “intimately and directly connected” to the process of producing petitioners’ product, and therefore the step-up transformers are directly used in production within the meaning of Tax Law § 1115(a)(12) (*see Matter of B.R. DeWitt*, Tax Appeals Tribunal, September 19, 1991). In accord with the language of the regulations, the step-up transformers “have an active causal relationship in the production of the product to be sold” as they change the voltage which is part of the product to be sold (*see* 20 NYCRR 528.13[c][1][ii]).

E. The Division argues that voltage related to the distribution of petitioners’ product and not to its production, and relies on *Matter of Niagara Mohawk Power Corporation v. Wanamaker* to support its position. The Division relies on a portion of the court’s statement in that case that “production stops at the generator” as a definitive rule for all producers of electricity. However, “[t]he determination as to whether a particular piece of machinery qualifies for the exemption depends upon the peculiarities of a taxpayer’s operation and must be individually assessed on its own fact pattern” (*Matter of Deco Builders, Inc.*, Tax Appeals Tribunal, May 9, 1991). As such, it is appropriate to compare the facts of *Matter of Niagara Mohawk Power Corporation v. Wanamaker* to those in this matter.

In *Matter of Niagara Mohawk Power Corporation v. Wanamaker*, the court addressed the application of a county sales and use tax exemption for tangible personal property used or consumed “directly and exclusively” in the production of tangible personal property for sale.¹² In that case, as here, the petitioner produced electricity. However, unlike petitioners here, the petitioner in that case also transmitted and distributed electricity to retail customers including

¹² It is noted that unlike the exemption in *Wanamaker*, which required that the equipment be used “exclusively” in production, the exemption here requires that equipment be used “predominantly” in production, which is defined as over 50 percent (20 NYCRR 528.13[c][4]).

residential and industrial consumers, and owned the distribution system, including sub-stations, transformers, towers and poles, conductors, voltage regulators, circuit breakers and similar equipment, all of which were in dispute for purposes of the exemption. Niagara Mohawk sold the electricity to its customers at different voltages. The vast majority in number of its customers consumed electricity at 120 or 240 volts, while the greatest part of its product and most revenue was derived from large industrial consumers, who purchased electricity at the voltages put out by the transformers and then reduced the voltage in their own transformers. Significantly, the court noted that most of petitioners' product could be sold to industrial customers at the voltage coming from the generator, and that the voltage was increased for purposes of the residential customers strictly for economic interests in transmission and distribution. The court determined that the listed equipment was used in the transmission and distribution, and not in the production, of electricity, reasoning that "[p]roduction stops at the generator, which produces electricity at a voltage which is (1) already too high so far as the residential consumers are concerned, and (2) *saleable so far as concerns the industrial consumers* which take the bulk of petitioner's product" (*Matter of Niagara Mohawk Power Corporation v. Wanamaker*, at 451) (emphasis added).

In contrast, here the electricity produced by the generators is not saleable at the voltage level obtained immediately coming off the generators. Rather, the final product cannot be sold to petitioners' customers at the interconnection point until and unless it achieves a voltage of 345 kV. Petitioners' product is simply not in saleable form until such time as the step-up transformers boost the voltage. Moreover, unlike the petitioner in *Matter of Niagara Mohawk Power Corporation v. Wanamaker*, petitioners here do not distribute their product to residential customers. Thus, their purpose for increasing the voltage is not an economic interest in

transmission and distribution. Rather, the purpose is to make the final product saleable at the voltage level required by the NYISO and companies that own the transmission system.

F. As noted, the Division contends that voltage relates to the distribution of electricity and not to its production. While there is no question that increased voltage facilitates distribution by decreasing energy loss, making delivery more efficient and economical for the wholesale purchasers, the record establishes that the increased voltage was a necessary component of petitioners' finished and marketable product, as discussed above.

Moreover, the Tax Appeals Tribunal has held that machinery and equipment may qualify for the production exemption under Tax Law § 1115(a)(12) notwithstanding that such equipment simultaneously serves a transportation or distribution function. Specifically, in *Matter of B.R. DeWitt* (Tax Appeals Tribunal, September 19, 1991) and *Matter of Miron Rapid Mix Concrete Corp.* (Tax Appeals Tribunal, January 9, 1992), the Tribunal concluded that concrete mixer trucks and mixer truck chassis were exempt production equipment even though such equipment was essential to the transportation or distribution of the taxpayers' product, transit mix concrete. Similarly, in *Matter of National Fuel Gas Distribution Corp.*, the Tribunal found that compressors that were used in both the purification and transmission of natural gas were used directly in production and therefore exempt under Tax Law § 1115(a)(12).

In each of these cases, the Tribunal evaluated the equipment in question in the context in which it was used. In evaluating petitioners' step-up transformers in the context of their use, it is clear that the transformers were at "the essence" of petitioners' production process, for, as the record shows, the step-up transformers increased the voltage to the required level of 345 kV, and the voltage level is an essential component of petitioners' final product for sale (*see Matter of*

Envirogas, Inc. v. Chu, 114 AD2d 38, 497 NYS2d 503 [1986], *affd* 69 NY2d 632, 511 NYS2d 228 [1986]).

G. As to the statutory requirement that equipment must be used predominantly in production to qualify for the exemption under Tax Law § 1115(a)(12), the step-up transformers increase the voltage to 345 kV, an integral part of petitioners' product, at all times when they are in use. The step-up transformers thus meet the "predominantly" requirement (*see* 20 NYCRR 528.13[c][4]). As such, petitioners' step-up transformers are determined to be exempt production machinery or equipment within the meaning of Tax Law § 1115(a)(12).

H. Tax Law § 1105-B(b) provides that receipts from every sale of services of installing, repairing, maintaining or servicing tangible personal property described in Tax Law § 1115(a)(12) shall be exempt from sales tax. The parties stipulated that if the step-up transformers are found to be exempt under Tax Law § 1115(a)(12), then the installation, maintenance and/or repair services are exempt. As it has been determined that the step-up transformers are exempt under Tax Law § 1115(a)(12), the installation, maintenance and/or repair services are likewise exempt.

I. Having concluded that petitioners' purchase and associated installation, repair, maintenance and/or service charges of step-up transformers are exempt from sales and use taxes pursuant to Tax Law §§ 1115(a)(12) and 1105-B(b), it is unnecessary to address the issue of penalties.

J. The petitions of Entergy Nuclear Operations, Inc., Entergy Nuclear Fitzpatrick, LLC, Entergy Nuclear Indian Point 3, LLC, and Entergy Nuclear Indian Point 2, LLC are granted and

the notices of determination dated March 1, 2012, May 27, 2012, May 29, 2012, and May 31, 2012 are cancelled.

DATED: Albany, New York
January 28, 2016

/s/ Barbara J. Russo
ADMINISTRATIVE LAW JUDGE