# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL

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### **SCHEDULE 13G**

**Under the Securities Exchange Act of 1934** 

(Amendment No. 5)\* /

Senesco Technologies, Inc.
(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

817208408
(CUSIP Number)

December 31, 2006

(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

o Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

<sup>\*</sup> The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

1	Names of Reporting Persons.		
		I.R.S. Identification Nos. of above persons (entities only)	
	Seneca Capital Investments, LLC Douglas A. Hirsch		
2	Check the Appropriate Box if a Member of a Group (See Instructions)		
	(a) o		
	(b) o		
3	SEC Use Only		
4	Citizenship or Place of Organization.		
Seneca		apital Investments, LLC Delaware	
	Douglas A	A. Hirsch - United States	
		5 Sole Voting Power	
		Seneca Capital Investments, LLC - 0 shares	
		Douglas A. Hirsch - 0 shares	
Number		6 Shared Voting Power	
of Shares		Seneca Capital Investments, LLC - 960,970 shares	
Beneficially		Douglas A. Hirsch – 960,970 shares	
Owned by		Refer to Item 4 below.	
Each		7 Sole Dispositive Power	
Reporting		Seneca Capital Investments, LLC - 0 shares  Douglas A. Hirsch - 0 shares	
	erson With		
		8 Shared Dispositive Power	
		Seneca Capital Investments, LLC - 960,970 shares  Douglas A. Hirsch – 960,970 shares	
		Refer to Item 4 below.	
9		Aggregate Amount Beneficially Owned by Each Reporting Person Seneca Capital Investments, LLC - 960,970 shares	
		A. Hirsch – 960,970 shares	
	_	Item 4 below.	
10	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o N/A		
11	Percent of Class Represented by Amount in Row (9)*		
	Seneca Capital Investments, LLC - 5.2%		
	Douglas A. Hirsch – 5.2%		
	Refer to Item 4 below.		
12	Type of Reporting Person (See Instructions)		
		Seneca Capital Investments, LLC - OO (Limited Liability Company)	
	Douglas A	A. Hirsch - IN	

# Item 1.

(a) Name of Issuer

Senesco Technologies, Inc.

(b) Address of Issuer's Principal Executive Offices

303 George Street, Suite 420, New Brunswick, New Jersey 08901

#### Item 2.

(a) Name of Person Filing

Seneca Capital Investments, LLC Douglas A. Hirsch

(b) Address of Principal Business Office or, if none, Residence

Seneca Capital Investments, LLC Douglas A. Hirsch c/o Seneca Capital Investments, LLC 590 Madison Avenue New York, NY 10022

(c) Citizenship

Seneca Capital Investments, LLC - Delaware Douglas A. Hirsch - United States

- (d) Title of Class of Securities
  - Common Stock, par value \$0.01 per share
- (e) CUSIP Number 817208408

# Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) o Broker or dealer registered under section 15 of the Act (15 U.S.C. 780).
- (b) o Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) o Insurance Company as defined in Section 3(a)(19) of the Act
- (d) o Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e) o An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) o An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) o A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) o A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) o Group, in accordance with §240.13d-1(b)(1)(ii)(J).

#### Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount Beneficially Owned\*\*

Seneca Capital Investments, LLC - 960,970 shares Douglas A. Hirsch – 960,970 shares

(b) Percent of Class

Seneca Capital Investments, LLC - 5.2% Douglas A. Hirsch – 5.2%

- (c) Number of shares as to which such person has:
  - (i) sole power to vote or to direct the vote

    Seneca Capital Investments, LLC 0 shares

    Douglas A. Hirsch 0 shares
  - (ii) shared power to vote or to direct the vote

Seneca Capital Investments, LLC - 960,970 shares Douglas A. Hirsch – 960,970 shares

(iii) sole power to dispose or to direct the disposition of

Seneca Capital Investments, LLC - 0 shares Douglas A. Hirsch - 0 shares

(iv) shared power to dispose or to direct the disposition of

Seneca Capital Investments, LLC - 960,970 shares Douglas A. Hirsch – 960,970 shares

\*\* Shares reported for Seneca Capital Investments, LLC reflect warrants held of record by private investment funds of which Seneca Capital Investments, LLC is the investment manager or the general partner of the investment manager. Seneca Capital Investments, LLC has voting and investment control over such shares and warrants, but disclaims beneficial ownership of the shares and warrants reported herein except to the extent of its pecuniary interest therein. Shares reported for Douglas A. Hirsch include warrants reported for Seneca Capital Investments, LLC, of which Mr. Hirsch is the managing member, and in such capacity may be deemed to have voting and investment control over such warrants. Mr. Hirsch disclaims beneficial ownership of all such shares and warrants except to the extent of his pecuniary interest therein

#### Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

CUSIP NO.

Not applicable.

# Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

# Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Not applicable.

# Item 8. Identification and Classification of Members of the Group

Not applicable.

### Item 9. Notice of Dissolution of Group

Not applicable.

#### Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

CUSIP NO. **817208408** 

### **SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this Statement is true, complete and correct.

February 14, 2007

SENECA CAPITAL INVESTMENTS, LLC

By: /s/ Douglas A. Hirsch
Douglas A. Hirsch
Managing Member

DOUGLAS A. HIRSCH

/s/ Douglas A. Hirsch
Douglas A. Hirsch, individually

#### AMENDED AND RESTATED JOINT FILING AGREEMENT

This Amended and Restated Joint Filing Agreement, dated as of February 14, 2007, is by and among Seneca Capital Investments, LLC and Douglas A. Hirsch, an individual (the foregoing are collectively referred to herein as the "Seneca Filers"), and amends and restates in its entirety any prior agreement among any of the Seneca Filers regarding the subject matter hereof.

Each of the Seneca Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G with respect to shares of common stock, par value \$0.01 per share, of Senesco Technologies, Inc. beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Seneca Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Amended and Restated Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Amended and Restated Joint Filing Agreement may be terminated by any of the Seneca Filers upon one week's prior written notice or such lesser period of notice as the Seneca Filers may mutually agree.

Executed and delivered as of the date first above written.

SENECA CAPITAL INVESTMENTS, LLC

By: /s/ Douglas A. Hirsch
Douglas A. Hirsch
Managing Member

DOUGLAS A. HIRSCH

/s/ Douglas A. Hirsch
Douglas A. Hirsch, individually