



## Senate

General Assembly

**File No. 607**

February Session, 2000

Substitute Senate Bill No. 610

*Senate, April 13, 2000*

The Committee on Finance, Revenue and Bonding reported through SEN. LOONEY of the 11<sup>th</sup> Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

### ***An Act Facilitating Electronic Commerce And The Development Of School Technology.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 12-412 of the general statutes, as amended by  
2 sections 16 to 27, inclusive, of public act 99-173 and section 54 of public  
3 act 99-241, is amended by adding subdivision (108) as follows:

4 (NEW) (108) Sales of equipment to a telecommunications company  
5 or community antenna television company, as defined under section  
6 16-1, that is used to provide telecommunications, high-speed data  
7 transmission or broad-band Internet services which offer the capability  
8 to transmit information at a rate that is not less than two hundred  
9 kilobits per second in at least one direction.

10 Sec. 2. (NEW) (a) The Department of Information Technology shall  
11 develop, with the advice and assistance of the State Board of

12 Education, the Board of Governors of Higher Education and the State  
13 Library, a five-year plan for the implementation of the Connecticut  
14 Education Network to provide state-of-the-art, high-speed, reliable  
15 Internet access and video, voice and data transmissions that  
16 electronically link all educational institutions in the state, including  
17 public and independent institutions of higher education, the state's  
18 libraries and all elementary, middle and secondary schools and other  
19 institutions including businesses, job centers and community  
20 organizations. The plan shall include the establishment of a  
21 Connecticut Digital Library as a component of the Connecticut  
22 Education Network to ensure on-line access by all students and  
23 citizens to essential library and information resources. The Connecticut  
24 Digital Library shall provide access to available on-line electronic full-  
25 text databases, a state-wide electronic catalog and interlibrary loan  
26 system and the electronic and physical delivery of library resources.  
27 The Connecticut Digital Library shall include elements specifically  
28 designed to meet the educational and research needs of the general  
29 public, higher education students and faculty and elementary and  
30 secondary school students and teachers.

31 (b) The department shall oversee the preparation and submission of  
32 a state-wide application for Universal Service Funds to enhance  
33 connectivity to the Connecticut Education Network, maximize  
34 participation and grant attainment rates, and reduce overly  
35 burdensome administrative requirements which discourage local  
36 involvement. The department shall prepare a feasibility report which  
37 sets forth (1) a review of how and under what circumstances other  
38 states have successfully submitted state-wide applications to the  
39 Universal Service Funds, (2) an analysis of what should specifically be  
40 incorporated into this state's application, and (3) an outline of  
41 necessary actions to be taken by the department for completion of a  
42 state-wide Universal Service Funds application. The department shall  
43 work, in consultation with the Departments of Education and Higher  
44 Education on the feasibility report and state-wide application

45 submission.

46 Sec. 3. (NEW) (a) The Department of Information Technology, in  
47 consultation with the Department of Education, shall administer a  
48 program to assist local and regional school districts and regional  
49 vocational-technical schools to become wired and connected to the  
50 Internet. Such program may include grants and other forms of  
51 assistance, including the provision of such wiring under a centralized  
52 contract with the department. In order to be eligible for a grant, an  
53 applicant shall present evidence that the applicant has applied for  
54 funds through the federal Universal Services Fund.

55 (b) The Department of Information Technology shall transfer one  
56 hundred thousand dollars of the amount appropriated for purposes of  
57 this section to the Department of Education for the vocational-technical  
58 schools for wiring and other technology initiatives at such schools.

59 Sec. 4. (NEW) The State Board of Education, after consultation with  
60 the Department of Information Technology, shall develop technology  
61 standards, including wiring standards, for school construction projects  
62 under chapter 173 of the general statutes.

63 Sec. 5. Section 10-145d of the general statutes is amended by adding  
64 subsection (e) as follows:

65 (NEW) (e) The State Board of Education shall adopt regulations, in  
66 accordance with chapter 54, to provide standards for the certification  
67 of computer science teachers. Such regulations shall make provision  
68 for certification requirements to be met by either (1) completion of  
69 prescribed courses of study, or (2) such other experience as the state  
70 board shall deem appropriate. The regulations shall also contain  
71 standards to certify individuals who hold a similar certificate issued by  
72 another state.

73 Sec. 6. (NEW) The Department of Education shall establish, within

74 available appropriations, a competitive grant program to fund  
75 innovative teacher training programs on the integration of technology  
76 into the public school curriculum in order to improve student learning.  
77 Regional educational service centers and institutions of higher  
78 education, including Charter Oak State College, may submit grant  
79 proposals for such programs to the department at such time and in  
80 such manner as the Commissioner of Education prescribes.

81 Sec. 7. (NEW) (a) The Department of Education shall establish,  
82 within available appropriations, a school technology grant program to  
83 assist local and regional school districts to improve the use of  
84 information technology in their schools. Grant funds may be used for  
85 teacher professional development programs related to the integration  
86 of technology into the curriculum and for computer support and  
87 maintenance. Local and regional boards of education shall apply to the  
88 Department of Education for grants at such time and in such manner  
89 as the Commissioner of Education prescribes.

90 (b) The Department of Education may retain up to one per cent of  
91 the amount appropriated for purposes of this section for coordination,  
92 program evaluation and administration.

93 (c) No funds received pursuant to this section shall be used to  
94 supplant federal, state or local funding to the local or regional board of  
95 education for technology.

96 (d) Expenditure reports shall be filed with the Department of  
97 Education as requested by the commissioner. School districts shall  
98 refund (1) any unexpended amounts at the close of the program for  
99 which the grant was awarded, and (2) any amounts not expended in  
100 accordance with the approved grant application.

101 Sec. 8. (a) On or before January 1, 2001, the Department of  
102 Education shall develop: (1) A state-wide standard for teacher  
103 competency in the use of technology for instructional purposes, and (2)

104 a state-wide plan to assist teachers to achieve the standard. The  
105 department shall assess the resources necessary to achieve such goal.  
106 The plan shall be submitted to the General Assembly as part of the  
107 report required pursuant to subsection (b) of this section.

108 (b) On or before January 1, 2001, the Commissioner of Education  
109 shall report, in accordance with section 11-4a of the general statutes, to  
110 the joint standing committee of the General Assembly having  
111 cognizance of matters relating to education on the status of educational  
112 technology in the public schools. The report shall include information  
113 on the level of funding needed to assure that the technology needs in  
114 the areas of infrastructure improvements, educator professional  
115 development, curriculum development and student competency  
116 development are met.

117 Sec. 9. (NEW) The State Board of Education shall adopt grade  
118 kindergarten to grade eight, inclusive, computer technology  
119 competency standards.

120 Sec. 10. (a) The sum of two hundred fifty thousand dollars is  
121 appropriated from the General Fund to The University of Connecticut  
122 for the fiscal year ending June 30, 2000. Such funds shall not lapse and  
123 shall continue to be available for expenditure during the fiscal year  
124 ending June 30, 2001, for the purchase of laptop computers for use by  
125 students in the School of Education at the university.

126 (b) The sum of two hundred fifty thousand dollars is appropriated  
127 from the General Fund to the Connecticut State University system for  
128 the fiscal year ending June 30, 2000. Such funds shall not lapse and  
129 shall continue to be available for expenditure during the fiscal year  
130 ending June 30, 2001, for the purchase of laptop computers for use by  
131 students in teacher preparation programs at the state universities.

132 Sec. 11. (NEW) (a) There shall be allowed a credit for any taxpayer,  
133 as defined in section 12-213 of the general statutes, against the sales or

134 use tax imposed by chapter 219 of the general statutes in an amount  
135 equal to the amount of a qualified investment as defined in subsection  
136 (b) of this section. Such credit may only be used against taxes  
137 attributable to purchases of computer equipment to be used in this  
138 state in electronic commerce. Credits allowed under this section may  
139 be transferred among an affiliated group, as defined in section 12-218c  
140 of the general statutes, which includes the taxpayer. Credits allowed  
141 under this section may be taken as a deduction from income on a tax  
142 return filed under chapter 208 of the general statutes or may be  
143 refunded to the taxpayer after the filing of a claim for such refund in  
144 accordance with procedures established by the Department of Revenue  
145 Services. Credits allowed under this section that are not used against  
146 sales or use tax liabilities in the income year in which such credits are  
147 first allowable may be carried forward and used in any of the five  
148 income years next succeeding provided the sum of all tax credits  
149 allowed under this section shall not exceed two million dollars per  
150 taxpayer.

151 (b) For purposes of this section, "qualified investment" means  
152 resources including, but not limited to, cash, property, or services  
153 provided by a taxpayer to a college or university in this state for the  
154 design, planning, construction or renovation of buildings or  
155 classrooms, the acquisition of computer equipment, or the acquisition  
156 of other property or licenses necessary for operation of computer  
157 programs which will be used in the instruction of students in business  
158 studies related to electronic commerce or in work force development  
159 programs.

160 Sec. 12. This act shall take effect July 1, 2000.

**FIN Committee Vote:** Yea 47 Nay 0 JFS

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

---

**OFA Fiscal Note**

**State Impact:** Implements the House and Senate Budgets, Cost

**Affected Agencies:** Department of Information Technology, Department of Education, Department of Revenue Services, Department of Higher Education, State Library

**Municipal Impact:** Revenue Gain

**Explanation**

**State and Municipal Impact:**

Section 1 of the bill, which exempts high speed data transmission equipment, from the sales and use tax is expected to result in revenue loss of \$8 million per year beginning in FY 01.

Section 2 requires the Department of Information Technology (DOIT), with the advice and assistance of the State Board of Education, the Board of Governors of Higher Education and the State Library, to develop a five-year plan for the implementation of the Connecticut Education Network (CEN). Over a five-year period, the goal is to initially create the CEN for all public and private institutions of higher education. It will then be expanded to provide access to each of the school districts in the state, and in the final year (FY 05) further expanded to provide services to every public library in Connecticut.

Total development costs are estimated at \$25 million. sHBH 5217, the Appropriations Act as favorably reported by the House members of the Appropriations Committee provides DOIT \$10 million in FY 00 surplus funds through FY 02 for the CEN. sHBS 5217, the Appropriations Act as favorably reported by the Senate members of the Appropriations Committee provides DOIT \$20 million in FY 00 surplus funds through FY 02 for both school wiring and the CEN. The specific distribution is not known at this time. Funding sources have not been identified for FY 03 and beyond.

It also requires that the CEN include the establishment of the Connecticut Digital Library. The Digital Library will give students, parents, and teachers access to learning and research opportunities by providing on-line data bases, a statewide electronic catalog, some on-line texts, and an inter-library loan system to facilitate the physical delivery of library resources. The annual costs would be \$2 million. Both of the budgets favorably reported from the Appropriations Committee provide \$2 million in FY 00 surplus funds for FY 01. Funding sources have not been identified for FY 02 and beyond.

It also requires DOIT, in consultation with the Departments of Education and Higher Education, to oversee the preparation and submission of a statewide application for federal Universal Service Funds. This can be accomplished with existing staff and within existing resources.

Section 3 requires DOIT, in consultation with the Department of Education, to administer a program to assist local and regional school districts and regional vocational technical schools to become wired and connected to the Internet. Total additional costs to ensure that every public school in the state is wired to the Internet are estimated at \$30 million. sHBH 5217, the Appropriations Act as favorably reported by the House members of the Appropriations Committee provides DOIT \$20 million in FY 00 surplus funds through FY 02 for school wiring.

sHBS 5217, the Appropriations Act as favorably reported by the Senate members of the Appropriations Committee provides DOIT \$20 million in FY 00 surplus funds through FY 02 for both school wiring and the CEN. The specific distribution is not known at this time. Funding sources have not been identified for FY 03 and beyond.

It also transfers \$100,000 of the moneys appropriated for wiring from DOIT to the Department of Education for wiring and other technology initiatives at the vocational-technical schools. Neither of the budgets favorably reported from the Appropriations Committee reflect this.

Section 4 requires DOIT to provide assistance to the State Board of Education in their development of new technology standards, including wiring standards for school construction projects. This can be accomplished with existing staff and within existing resources.

Additionally, section 4 of the bill, which requires the Department of Education to develop technology standards for school construction projects, results in a minimal absorbable cost to the Department.

Section 5 of the bill, which requires the Department of Education to adopt regulations concerning certification standards for computer science teachers, results in a minimal absorbable cost to the Department.

Section 6 of the bill establishes a competitive grant program to fund innovative teaching programs on the integration of technology in the classroom. Neither version of the FY 01 budget contains funds for this purpose within the Department of Education. The House version of the budget contains funding for a similar purpose in the budget of the Charter Oak State College. It is unclear if the Senate version of the budget contains any funding for this purpose.

Section 7 of the bill establishes a grant program within the

Department of Education to assist local and regional school districts to improve the use of technology in their schools. Grant funds may be used for teacher professional development, computer support and maintenance. Neither version of the FY 01 budget contains funding for this purpose within the Department of Education.

Section 8 of the bill which requires the Department of Education to develop a state-wide standard for teacher competency in the use of technology for instructional purposes and to report on the status of educational technology in public schools can be achieved within current resources as the Department is already in the process of achieving these objectives.

Section 9 of the bill, which requires the Department of Education to adopt grade K to 8 computer technology standards, can be achieved within current resources as the Department is already in the process of achieving this objective.

Section 10 of the bill appropriates \$250,000 each to the University of Connecticut and the Connecticut State University system from the FY 00 General Fund for the purchase of laptop computers for use by students in teacher preparation programs in FY 01.

It should be noted that this section of the bill appropriates funds in FY 00, which along with sHB 5183, "An Act Concerning the Establishment of the University of Connecticut Health Center Review Committee and Funding for the University of Connecticut Health Center", and the deficiency bill will result in a level of appropriation that exceeds the spending cap. To exceed the statutory spending limitation, the legislature must receive a declaration of an emergency or extraordinary circumstances from the governor and the legislature must approve the additional spending by a three-fifths majority of each chamber.

Section 11 of the bill, which provides a sales tax credit for

companies making qualified investments to a college for technology, is expected to result in a revenue loss. Since it is assumed that the Department of Revenue Services will require colleges to certify that investments have been made and that projects related to the investment have been completed before the credits can be taken, any impact to the state is not expected until FY 02. The loss would depend on the number of investments made and the amount of taxes attributable to purchasing certain computer equipment.

**OLR Bill Analysis**

sSB 610

***AN ACT FACILITATING ELECTRONIC COMMERCE AND THE DEVELOPMENT OF SCHOOL TECHNOLOGY.*****SUMMARY:**

This bill exempts certain high-speed data transmission equipment bought by telecommunications and cable television companies from the sales tax. It also gives companies sales and use tax credits equal to resources they provide to Connecticut higher education institutions for specified computer-related purposes. The maximum credit is \$2 million per company. The credits must be used against taxes companies owe on computer equipment bought for use in Connecticut for electronic commerce.

The bill establishes a statewide educational technology program that includes:

1. grants for improving the use of information technology in schools, and for innovative teacher training programs;
2. assistance for wiring schools and providing Internet access;
3. a five-year implementation plan for a Connecticut Education Network to electronically link schools, colleges, libraries, and certain other institutions;
4. a plan for a Connecticut digital library;
5. submission of a statewide application for technology funding through the federal Universal Service Fund; and
6. technology standards for schools.

It requires the State Board of Education (SBE) to develop standards for certifying computer science teachers and for teacher competence in

technology and to adopt computer competency standards for students in grades K-8.

Finally, the bill appropriates \$250,000 each from the FY 1999-00 surplus to UConn and Connecticut State University for FY 2000-01 to buy laptop computers for use by students in their schools of education.

EFFECTIVE DATE: July 1, 2000

### **SALES TAX EXEMPTION**

The bill exempts from the sales tax equipment that telecommunications and cable television companies buy and use to provide telecommunications, high-speed data transmission, or broadband Internet services. To qualify for an exemption, the equipment must provide service that transmits information at a minimum speed of 200 kilobits (200,000 bits) per second in at least one direction.

### **SALES AND USE TAX CREDITS**

The bill gives companies a credit against the sales and use taxes they owe on computer equipment they buy to use in Connecticut for electronic commerce. The amount of the credit equals the resources a company provides to a Connecticut college or university for (1) designing, planning, building, or renovating buildings or classrooms; (2) acquiring computer equipment; or (3) acquiring property or licenses needed to operate computer programs used for student instruction in business studies related to electronic commerce or workforce development programs. In calculating the amount of the resources provided, a company can include cash and the value of property and services.

A company may transfer credits to affiliates, take the credits as a deduction against its corporation tax, or apply to have them refunded. Refund claims must be filed according to procedures the Department of Revenue Services establishes. Unused credits may be carried over from year to year for five years. The maximum credit is \$2 million per company.

### **EDUCATIONAL TECHNOLOGY GRANTS**

### ***School Technology Grant Program***

The bill requires the State Department of Education (SDE) to establish a grant program to help school districts improve how they use technology in school. Districts may use grants for (1) professional development for teachers on integrating technology into the curriculum and (2) computer support and maintenance.

Districts must apply for grants when and how the education commissioner prescribes and file expenditure reports with SDE as the commissioner requests. They must refund any money that either remains unspent at the close of the program for which the grant was awarded or is not spent according to an approved grant application. Districts may not use grant funds to supplant federal, local, or other state technology funding.

The bill allows SDE to keep up to 1% of the total grant appropriation for coordination, program evaluation, and administration.

### ***Competitive Teacher Training Grants***

The bill requires SDE to establish a competitive grant program for innovative programs to train teachers to integrate technology into the public school curriculum to improve student learning. Regional education service centers and higher education institutions may apply for grants when and how the education commissioner prescribes.

### ***Assistance for Wiring and Internet Connection***

The bill requires the Department of Information Technology (DOIT), in consultation with SDE, to administer a program to help school districts and the regional vocational-technical (V-T) schools become wired and connected to the Internet. The program can include both grants and other kinds of help, including providing wiring under a centralized DOIT contract.

To be eligible for grants, districts must show they have applied for funds through the federal Universal Service Fund.

The bill requires DOIT to transfer \$100,000 of its appropriation for this assistance to SDE for wiring and other technology initiatives at the V-T schools.

## **CONNECTICUT EDUCATION NETWORK**

### ***Plan***

The bill requires DOIT to develop a five-year plan to implement the Connecticut Education Network. SBE, the Board of Governors of Higher Education, and the State Library must help.

### ***Network Components***

The network must provide (1) state-of-the-art, high-speed, reliable Internet access and (2) video, voice, and data transmissions. It must link all the state's public and private higher education institutions; libraries; elementary, middle, and secondary schools; and other entities, including businesses, job centers, and community organizations.

### ***Connecticut Digital Library***

The network plan must include a digital library to ensure citizens and students have on-line access to essential library and information resources. The library must provide access to (1) electronic full-text databases available on-line, (2) a statewide electronic catalog and interlibrary loan system, and (3) electronic and physical delivery of library resources. The library must include elements designed to meet research and educational needs for the public and for K-12 and higher education students and teachers.

## **UNIVERSAL SERVICE FUND APPLICATION**

The bill requires DOIT to oversee a statewide application for funds from the federal Universal Service Fund. The funds must be used to enhance connectivity to the Connecticut Education Network, encourage the maximum number of school districts to participate and get grants, and reduce administrative requirements that discourage local involvement.

DOIT must prepare a feasibility report that (1) reviews methods used by other states that have successfully submitted statewide applications, (2) analyzes the specific items to include in Connecticut's application, and (3) outlines what DOIT needs to do to complete an application. DOIT must work with SDE and the Department of Higher Education on both the feasibility report and the statewide application.

### **SCHOOL TECHNOLOGY STANDARDS**

The bill requires SBE, after consulting with DOIT, to develop technology standards, including standards for wiring, for state-assisted school construction projects.

### **TEACHER STANDARDS**

#### ***Computer Science Certification***

The bill requires SBE to adopt regulations setting standards for certifying computer science teachers. The regulations must allow standards to be met by either (1) completing prescribed courses of study or (2) having whatever other experience the SBE thinks appropriate. They must also contain standards for certifying those who hold similar certificates issued by other states.

#### ***Competency Standard and Plan***

The bill requires SDE, by January 1, 2001, to develop a (1) standard for teacher competency in using technology for instruction and (2) a plan to help teachers achieve it. SDE must submit the plan, together with an assessment of the resources needed, to the General Assembly as part of the school technology report the bill requires (see below).

### **SCHOOL TECHNOLOGY REPORT**

The bill requires the education commissioner to report to the Education Committee on the status of public school educational technology. The report must include information on funding needed to meet technology needs in (1) infrastructure improvement, (2) educator professional development, (3) curriculum development, and

(4) student competency.

**BACKGROUND**

***Universal Service Fund***

Among other things, the federal Universal Service Fund provides eligible schools and libraries with funds for educational technology infrastructure and discounted telecommunications service and Internet access. The fund, established by the Federal Communications Commission, is funded by assessments on telecommunications companies providing interstate long distance service.

**COMMITTEE ACTION**

Finance, Revenue and Bonding Committee

Joint Favorable Substitute

Yea 47    Nay 0