



February 5, 2015

**To:** House Corrections and Institutions Committee  
**From:** Charlie Smith, Interim President and CEO, Vermont PBS  
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**Subject:** Capital Budget, FY 2016 and 2017

On behalf of Vermont PBS, I would like to thank the House Corrections and Institutions Committee for its great support, over many years, of the public television mission. Vermont PBS is a capital intensive enterprise with an extensive and integrated infrastructure of towers, antennas, transmitters, relays, generators, computers, master control equipment, production equipment, editing suites, etc. It is a significant and expensive undertaking to keep the infrastructure in operating condition, to identify and reinforce weak points in the system, and periodically refresh and replace aging or obsolete equipment.

We appreciate and support the Governor's recommendation of \$375,000 for transmission security and production modernization. This support will allow us to protect the existing investment in equipment, continue to provide reliable statewide service, and refresh essential equipment. The original request addressed two additional categories of investment: facility improvements and archive curation. These are, arguably, less critical. That said, the archive curation (digital conversion) must be done before long or we risk severe deterioration of significant historical tape footage.

Also, attached is a Progress Report on the conversion to a digital broadcasting system that has been executed over the last 10 to 15 years with the legislature's generous support.

We deeply appreciate your support for the mission of public television. We are proud to be the stewards of this mission in Vermont and will be pleased to answer any questions you may have.

**VERMONT PBS FY 2016-17 CAPITAL REQUEST  
NARRATIVE and PROGRESS REPORT ON DIGITAL CONVERSION  
November 2014**

Vermont PBS has been serving Vermont for more than 45 years -- ever since the state created "Vermont Educational Television" in 1967. Vermont PBS is Vermont's source for the outstanding programs of PBS, including trusted educational media for children, as well as local programs and services designed to meet Vermonters' needs and interests on air and online. Vermont PBS's infrastructure of transmission sites, master control, offices, studio production and field production facilities supports all the services that people of all ages and backgrounds value from their statewide public television service.

With continued state capital funding and Vermont PBS's proven ability to secure federal and private funds to match and supplement state funding, Vermont's public television network will invest in the infrastructure that allows its staff to produce and deliver higher quality content to the people of Vermont.

**For FY 2016-17, Vermont PBS requests state funding for four projects:**

**Project 1** is for Transmission Security to insure Vermont PBS can continue to provide reliable transmission of its programs and services.

**Project 2** is for Production Modernization to allow Vermont PBS to keep pace with the evolution of new technology and take advantage of these advancements to give Vermont PBS the ability to continue to produce content that is compelling and of the highest quality.

**Project 3** is for Facility Improvements which will provide enhancements to our studio building infrastructure.

**Project 4** is for Archive Curation which will allow for the preservation of the extensive library of historical video footage recorded on aged and deteriorating analog tape.

**PROGRESS REPORT ON VERMONT PBS'S DIGITAL CONVERSION PROJECT**

Since 1999, the State of Vermont has invested \$6,548,000 in Vermont PBS's biggest capital project ever: its multi-year digital conversion. State funding, combined with federal funds, has provided towers, transmitters, antennas, monitors, computer servers and production equipment for the federally mandated transition to the digital format.

In 2006, Vermont PBS completed Phase 1, its network of full-power digital transmitters and studio-to-transmitter interconnection. These transmitters broadcast four Vermont PBS program streams: the main channel in HD, Vermont PBS Plus, also in HD, and additional channels Vermont PBS World and Vermont PBS Create. The towers at Vermont PBS's four

mountaintop sites have the added benefit of supporting broadband and cell deployment, because they house antennas for cellular and wireless companies.

Vermont PBS completed Phase 2, its digital master control at the Colchester studio, in 2009. From this facility, operators monitor Vermont PBS's transmitters around the state and its multiple channels – Vermont PBS HD, Vermont PBS Plus HD, Vermont PBS Create and Vermont PBS World. As part of this phase, Vermont PBS installed archive hardware and software to store a vast amount of content. Vermont PBS continues to maintain vast amounts of content on film and video tape and seeks to secure funding to purchase the equipment necessary to convert the tape media content into digital media content so that this content, which is of historical significance, is not lost.

Vermont PBS has completed Phase 3, the conversion of studio and field production equipment. Phase 3 is the final phase of the digital conversion project.

#### Studio HD Production

Vermont PBS's Colchester headquarters houses two studios where *Vermont This Week*, *Report From Montpelier*, town halls with elected officials and political debates originate. In 2011, Vermont PBS reached a milestone when it began producing all studio shows in the high definition (HD) format that is the industry standard. Main elements installed were cameras, monitors, video control room, character generator and editing facilities.

Supporting the HD quality of its studio productions, Vermont PBS worked with local contractors in 2012 to replace its antiquated 1967 studio lighting system with sockets, circuit breaker panels and energy-efficient lights in its two studios.

#### Field HD Production

Programs like *Outdoor Journal*, *Emerging Science* and historical documentaries depend on portable video and audio equipment to tell stories from locations around the state. Much of this equipment has been purchased, and the last of it is part of Vermont PBS's current request.

#### Bennington County Digital Transmission

In 2011, Vermont PBS replaced its two low-power analog transmitters in Bennington County with digital transmitters that serve a part of the state that would otherwise be unable to receive Vermont PBS over the air. The result is a more reliable signal, as well as access to Vermont PBS's main and Plus channels in HD and its two additional program channels (Vermont PBS Create and World).

#### HVAC Energy Conservation Retrofitting

The new digital equipment at the Vermont PBS facility needs efficient heating, ventilating and air conditioning to function reliably in a facility where computers support every aspect of production and distribution. Vermont PBS found out how inefficient its late-1970s HVAC system was when it began working in 2012 with Efficiency Vermont, Kilawatt Technologies and other local contractors on the retrofit.

Vermont's Kilawatt Technologies Inc. has helped Vermont PBS install an energy sub-metering system that has already reduced total energy load significantly. The retrofit

included a HVAC upgrade in the production studios. In conjunction with this retrofit Vermont PBS is seeking to add air conditioning to our main studios and facility.

#### Vermont PBS Plus

In the spring of 2014 Vermont PBS began broadcasting a second high definition television channel named Vermont PBS Plus. In addition to Vermont PBS's other three channels, the Plus channel provides Vermont PBS with more capacity to showcase local, independently produced content from local partners such as Vermont filmmakers, the Vermont Humanities Council, and the Flynn Center. The inaugural program for Vermont PBS Plus was *Freedom and Unity: The Vermont Movie*, a collaboration of 49 Vermont filmmakers celebrating the social and cultural history of Vermont.

#### Mobile Unit and Satellite Uplink

The conversion of Vermont PBS's mobile unit from analog to digital equipment has mostly been completed. This conversion will be complete with the acquisition of certain pieces of equipment included in Project 2. This high definition capable mobile unit is essential for Vermont PBS to be a fully statewide service.

In FY14, with State support, Vermont PBS purchased a satellite uplink vehicle which enables real-time transmission of offsite live programs. It allows Vermont PBS to feed offsite-based content to studio productions, serving Vermonters with information in the timely manner expected in today's media environment.

### **BENEFITS OF VERMONT PBS'S DIGITAL CONVERSION PROJECT TO VERMONTERS**

The transition from analog to digital television was a federal FCC mandate. Vermont PBS's digital conversion benefits all Vermonters by sustaining Vermont PBS's mission to educate, inform, entertain and inspire lifelong learning and community engagement. The project sustains access to national PBS programming and to local broadcast programming that Vermonters depend on. It also opens the way for new services.

In addition to keeping Vermont PBS programs available to Vermonters, the digital studio equipment enhances the quality of productions, making Vermont PBS second to none in the level of technical capability.

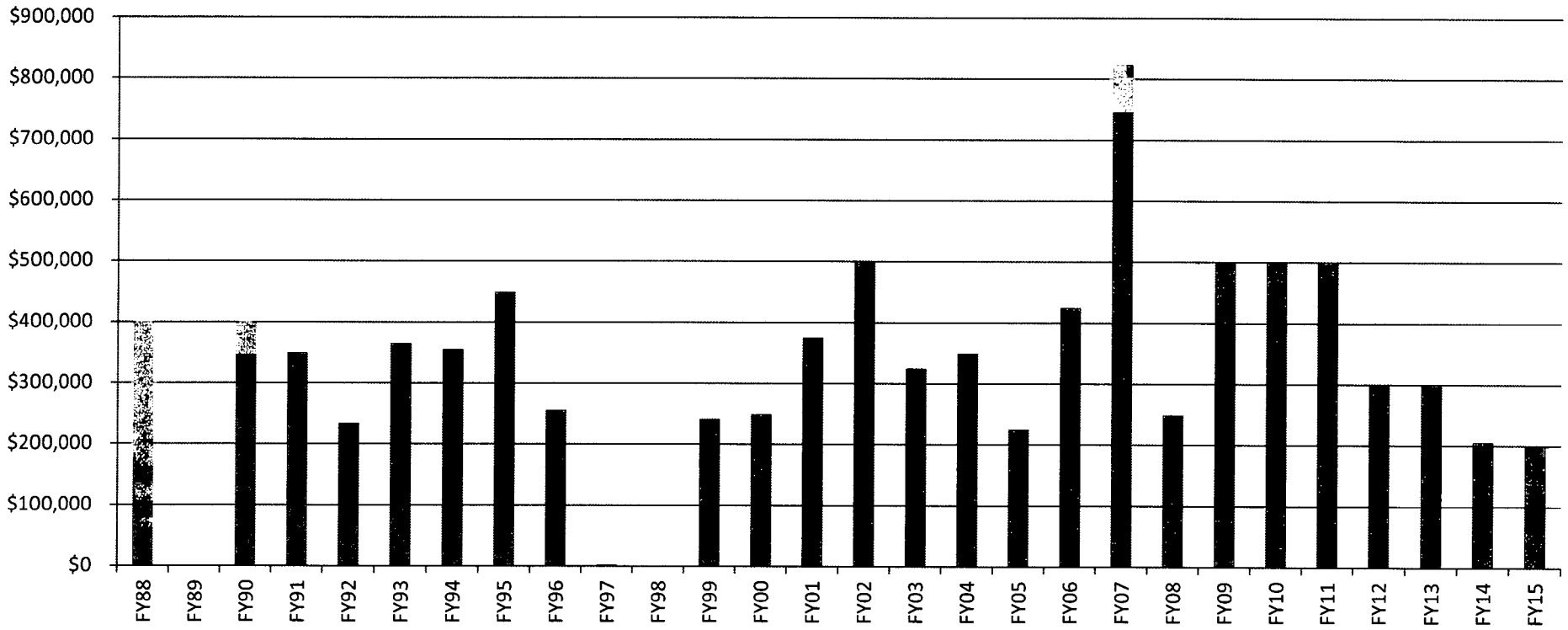
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**VERMONT PBS**  
**History of State Capital Fund Appropriations**  
**FY88 - FY15**



**Note: FY99 First appropriation for Vermont PBS' digital conversion**

**FY07 Includes \$603,577 for State-required Mt. Mansfield expenses**