DEDHAM TELEVISION

502 Sprague Street
Dedham, MA 02026
Phone: 781.326.2107
Fax: 781.326.2023
E-Mail: info@dedhamtv.com
Web: www.DedhamTV.com

Dedham TV
& Media Engagement Center
502 Sprague Street

10 YEAR CAPITAL EXPENDITURES

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2016-2026

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Abstract

Since the beginning of the Twenty-First Century the rapid pace of broadcast media technologies and distribution networks has far outstripped the prior fifty-plus years since the *dawn of television*. There was a time when cable television was broadcasting only a limited selection of channels including premium channels (**HBO**, **Cinemax**, and **Showtime**) with virtually no interactive components and rigid programming schedules.

Then the **Internet** changed all of that. Very quickly cable television went from a static (and often-times adult-oriented) form of media distribution to a platform where consumers (i.e. viewers/subscribers) could go online and delve deeper into the programs they were watching. From websites such as the **Internet Movie Database** (*IMDb* for short) to **Rotten Tomatoes** movie-meta-scoring ratings system, the need for even greater interaction with entertainment, government, news, and educational content skyrocketed!

Almost overnight there was an explosion of content-specific cable channels and corresponding websites such as **MSNBC**, **The Discovery Channel**, **Disney XD**, **PBS Kids**, and more!

But that still was not enough, then came the world of mobile computing from *lightweight laptops* to *smartphones* to *tablets* making the demand for portable digital media even greater. And the answer to that was the *video-streaming mega-sites* for program re-broadcasting and original programming such as **Hulu**, **Netflix**, **CBS All Access**, **Vimeo**, **YouTube**, **CWTV**, **Fox NOW**, **ABC Go**, and more.

However, up until recently one area of the cable television industry lagged behind: **cable access television**. When most people think of *cable access TV* they think of shows like the old *Saturday Night Live* comedy skit ***Wayne's World***—a show where two young Gen-Xers are goofing around in someone's basement making a super-low budget (almost no-budget) show for an extremely small viewership.

Fortunately, that is no longer the case.

Cable Access Television is quickly catching up to its bigger studio network brothers in both variety of programming and quality of production value, along with new and exciting forms of digital distribution channels.

This is a big deal for cable subscribers because they can be treated to high-quality programming featuring content that is specific to their local and regional needs.

Furthermore as **PEG Stations** (*Public*, *Educational*, and *Government*) become more prevalent, the need for 21st Century cable access *TV/film/media production houses* becomes even greater. Local communities heavily rely on their cable access stations for emergency information, public school specific events coverage, an open democratic political forum for debate, a platform to voice opinions and disseminate valuable community-based information, and a creative outlet for artistic expression.

Cable Access Television does all of that and so much more!

And that is what this **2016-2026 10-Year Capital Expenditure Budget Proposal** for ***Dedham Television*** will address.

Dedham Television and Media Engagement Center is a cutting-edge digital studio production company and media distribution center; as well as, a broadcast media arts training facility.

We have been around since the early days of cable television and currently we occupy a spectacular studio with over **48,000 square feet** of sound stage space.

This studio located at *502 Sprague Street in Dedham Massachusetts* was built in 1970 from the ground up to be a television production and broadcast studio. Many amazing programs, commercials, and special events have come out of this building. Everything from a special production of ***Giligan's Island***, political campaign ads for **Governor Edmund Muskie** and **Senator Edward Kennedy**, to coverage of many sports events including the **New England Patriots**.

This studio has stood the test of time and is primed and ready to take cable access programming to a whole new 21st Century level!

Though the studio has had many improvements happen to it since ***Dedham Television and Media Engagement Center*** became its chief tenant, there still remains much more upgrades, enhancements, build outs, and integration of new digital media production and broadcast technologies. These upgrades also provide a vital service for the community of Dedham Mass. as our residents and their children can come to our training facility and learn about them for their own creative and professional purposes—and to serve the community as a whole.

For example, our *Summer Camps* have given middle-school aged children the opportunity to learn how to produce a show themselves, which includes everything from using digital cameras, setting up a sound stage, directing a production, editing digital video, and earning a *Certificate of Completion*. It is both a path to individual pride and accomplish as well as teamwork building for young creative people in the community.

Furthermore, our shows provide valuable information to our viewers on topics that range from family-based care giving, culinary arts, live music performance, addressing controversial and serious social issues, to light-hearted holiday entertainment.

And these programs reach far beyond the local communities where cable subscribers can watch our shows. Through the power of *Internet-based video-streaming platforms and technologies* such as **UStream**, **TelVue CloudCast**, and **Vimeo Pro** we have been able to broadcast our content to a national and global audience!

For example, our ***2014 Holiday Harvest Telethon*** was seen by viewers as far away as *California* due to our digital simulcasting via our *TelVue CloudCast* service, which helped raise over *$10,000 for Dedham's food insecure*.

Another example is our ability to broadcast our shows via video-streaming services such as *YouTube*, which has allowed *Dedham Television* shows like ***Nick's Sci-Fi Corner*** to be viewed internationally in countries such as the *UK*, *Spain*, and *Japan*.

In order to keep up with the rapid pace of technological advancements; as well as, maintaining our current systems, *Dedham Television* requires long-term investments in the following categories:

- **Infrastructure**
- **Equipment & Hardware**
- **Software & Licensing**

This **10-Year Capital Expenditure Budget Proposal** will look at each category year-by-year and their associated costs and expenses with detailed narratives.

Taking into consideration that *Over-the-Air* programming is being broadcast in **1080i High Definition (HD)** resolution that most modern flat screen televisions can display, and the fact that virtually every channel available to cable television subscribers have an **HD** version, it comes as no surprise that cable access stations need to position themselves to broadcast both in **HD** and in the forthcoming **4K Ultra-HD** resolution.

This requires a huge upgrade in both **4K** capable digital cameras and a broadcasting distribution infrastructure—some of which *Dedham Television* is in the process of converting over to.

The following is a brief list of recent upgrades to *Dedham Television's* technological infrastructure:

- The decommissioning of our old *Standard Broadcasting Broadcast Pix* studio cameras and control boards in favor of new **HD** digital cameras and an *HD Broadcast Pix Roadie* system.
- Subscriptions to new video-streaming services including: *UStream*, *TelVue CloudCast*, and *Vimeo Pro*.
- A new Internet-based **Video-on-Demand (VOD)** platform with 3 new **VOD** channels for our *Public*, *Government*, and *Educational* channels at: **VideosNow.DedhamTV.com**, **MeetingVids.DedhamTV.com**, and **SchoolSpace.DedhamTV.com** respectively.
- Two new fully interactive and mobile device responsive websites that showcase our commitment to new digital video-streaming technologies, social media marketing, and community awareness campaigns at: ***www.DedhamTV.com*** and ***www.DedhamTVLive.com***.
- New Cloud-based company network services for data & media storage, employee training, and project management.
- Launching our new ***Media Engagement Center*** on May 21st, 2014 allowing adult and school age students to come and learn all aspects of digital video production at a fraction of the costs at other learning institutions—these classes are highly discounted for Dedham residents.
- A suite of new Internet social media channels to promote *Dedham Television and Media Engagement Center*, including *Facebook*, *Twitter*, *Google+*, *YouTube*, *Vimeo*, and *LinkedIn*, with more on the way.

Dedham Television and its governing privately-held non-profit organization the ***Dedham Visionary Access Corporation***, have been steadily taking our local cable access station and turning into a full television and film production studio, a media distribution center, a business-to-business enterprise, and a full-scale 21st Century media arts training facility.

We have **the largest publicly-held studio in New England** and we have the staff with years of professional broadcast, film, videography, and media arts experience. Our friends, supporters, channel partners, and the community at large have come to depend on us from everything to covering the *Town of Dedham's Annual Flag Day Parade*, all important town agency meetings (*Board of Selectmen*, *School Committee*, *Water District*, etc.), major holiday events, to producing public service announcements for our school children.

And finally, our huge selection of original programming and how we distribute them makes us a serious competitor with the bigger local networks such as **Fox25**, **WBZ**, and more. Our shows have been nominated for **New England Cable Access Emmys**, and our producers are highly-accomplished professionals in their fields.

Dedham Television is poised and ready to head into the third decade of the 21st Century growing bigger and better than ever!

Mission Statement

Dedham Visionary Access Corporation's (DVAC) mission statement is to "stimulate a vibrant community reaching and connecting the organizations, neighborhoods, families and individuals of all ages to tell Dedham's many stories—past, present and future. By using media and technology, *DVAC* fosters meaningful and relevant projects to spark curiosity, nurture creativity and innovation, and fuel life long learning. We facilitate this mission by providing grants, guidance and support resources to impact the quality of life in Dedham."

Category Definitions

Infrastructure

Infrastructure costs are any expenditures that involve physical changes, upgrades, or renovations to the actual *502 Sprague Street Studio* that *Dedham Television* occupies. This includes but is not limited to new facility build outs such as a new *Green Room*, *Makeup Room*, *Observation Booth*, renovations to existing offices and upgrades to the *Media Engagement Center*, new theatrical curtains, new doors, new sound stage lighting systems, etc.

Equipment & Hardware

Equipment & Hardware is the largest category in terms of volume because all equipment has a limited lifespan due to wear and tear and obsolescence.

Equipment can be anything from new *4K digital studio camcorders*, wires and cabling, high-bandwidth WiFi routers, network servers, equipment racks, tripod mounted lights, video-streaming broadcast systems, desktop computer workstations, laptop computers, editing bays, mobile devices (iPads & iPhones), microphones, new dedicated *Dedham Television* vehicle (i.e. a van with logo and identifying markings on it), etc.

Software & Licensing

Software & Licensing is by far the most complicated category due to the complexity of software licensing agreements between users like *Dedham Television* staff and software developers such as *Adobe* and *Apple*.

Software can include anything from non-linear video editing programs such as *Adobe Premiere Pro CC*, post-production VFX applications such as *Adobe After Effects*, photo editing software such as *Adobe Photoshop*, multi-camera video synching programs such as *Red Giant's PluralEyes*, office productivity suites such as *Microsoft Office 365*, and dozens more.

Licensing occurs on a per-user basis (or number of seats), with yearly subscriptions, and most software these days is distributed via a cloud-based virtual store such as the **Apple Apps Store**.

Year One Capital Expenditures

Capital Expenditure Summary

The 502 Sprague Street Studio needs various *Year One* upgrades and enhancements to its main studio, which includes new theatrical curtains to cover the massive green screen wall the studio features, new physical sets for video productions, and external storage of large set pieces so as not to clutter up the sound stage space.

The TelVue HyperCaster & Additional Broadcast Server Solutions is a complete forward-looking **HD** (with SD compatibility) replacement for our aging *Control Room* equipment. In literally half the space with four times the power and capabilities the *TelVue* solution will replace a host of legacy systems such as our antiquated *WinLGX* video server management control software and *Avelin Composer* onscreen titling system. These old systems are quickly nearing the end of their usefulness and are in need of replacing. See *Appendix D — Vendor Quotes* for details.

Dedham Television's main studio requires a **4K Ultra-HD large format projector & projector screen** (approx. 11ft wide) for public screenings of videos produced by *Dedham Television*, clients, channel partners, and community members.

Dedham Television staff and its *Media Engagement Center* requires all new high-performance computers capable of handling video editing and rendering projects in *HD and Ultra-HD*. Files for these types of videos are extremely large, and the volume of programming on a weekly basis to edit is huge; only the most powerful "pro-sumer" (professional/consumer) systems on the market can handle this workload. Staff members need dedicated workstations not only for video editing but for productivity and marketing communications work as well. *The Media Engagement Center* systems are expected to last at least several years and only an investment in *top-of-the-line systems* can ensure that.

Adobe Creative Cloud Complete contains all of the video, photo, and marketing collateral editing/processing/designing software that *Dedham Television* requires to do its work here. Some of the applications include *Adobe Premeire Pro*, *Adobe Photoshop*, *Adobe Illustrator*, *Adobe Acrobat Pro*, *Adobe Lightroom*, and *Adobe InDesign*. Ten licenses are required for current staff of **five** and **five** *Media Engagement Center* training workstations. This software package is only available as a monthly/yearly subscription model.

Microsoft Office 365 Business is the quintessential office productivity suite that every business uses. The pricing model (just like the *Adobe Creative Cloud*) is based on monthly/yearly subscriptions. There is no one-time cost any more for this product. **Five** licenses are required for *Dedham Television* staff.

Additional video editing and production programs such as ***PluralEyes*** and ***Toast Titanium*** still retain their old pricing models and do not require monthly subscriptions. These programs will need periodic upgrades and will be duly noted in subsequent yearly expenditures. Additional software budget noted here as well.

Capital Expenditure Detail

Infrastructure

Infrastructure Upgrade/Addition	Detail	Cost
New in-studio Professional Lighting System & Theatrical Curtains and tracks (see *Appendix D — Vendor Quotes* for details).	Legacy studio lighting systems and curtains (are all in need of replacement. Quote provided by **Integrated Solutions Group**	$80,447
Sound Stage Scenery Revamp	New scenery for main studio and MEC studio productions.	Est. $10,000
External Storage Facility	**A.K.A. Storage PODs** used for set storage. $213 monthly rental fee.	$2,556
	TOTAL:	$93,003

Equipment & Hardware

Equipment/Hardware	Detail	Cost
TelVue HyperCaster & Additional Broadcast Server Solutions (see *Appendix D — Vendor Quotes* for details)	HyperCaster IP Capture ProVue InfoVue Connect Care	$69,880.45
Sony VPLVW350ES 4K (4096p) 3D SXRD Home Theater/Gaming Projector	Studio projector for public video screenings.	$7,998
Draper Onyx Black aluminum HDTV Format Projection screen	Studio projector screen for public video screenings	$1,103
New Employee Computers & Editing Bay Workstations for Media Engagement Center	5 x 5K iMacs @ $2,299 ea. 5 x 6-Core MacPros @ $3,999 ea. 5 x 27" Apple Thunderbolt Displays (for MacPros) @ $999 ea. 5 x Magic Keyboard (for MacPros) @ $99 ea. 5 x Magic Mouse 2 (for Mac Pros) @ $79 ea.	$37,375 (not including taxes and fees)
5 iPhone 7s (128GB) @ $649 ea.	Remote communications with studio, social media broadcasting, video uplink hotspot.	$3,245
5 iPad Pros (128 GB) @ $1,079 ea.	Remote off-site video editing, public presentation platforms, legal digital documents (e.g. talent waivers).	$5,395
	TOTAL:	$125,751.45

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ $69.99 per user/month	$699.90 Monthly/$8,398.80 Yearly
Microsoft Office 365 Business	5 licenses @ $8.25 per user/month	$41.25 Monthly/$495 Yearly
Toast Titanium 14	10 licenses @$99 per download	$990 One-time Cost
PluralEyes	10 licenses $199 per download	$1,990 One-time Cost
Additional Software Budget	Unspecified software need that always come up yearly.	Est. $5000
	TOTAL:	$16,873.80

Year One Total

$235.628.25

Year Two Capital Expenditures

Capital Expenditure Summary

Year Two's Capital Expenditures are dominated by the build out of a modern, highly-functional, flexible, and dynamic dedicated **Audio/Visual** (A/V) broadcast system infrastructure for the new *Dedham Town Hall at the Ames Schoolhouse*. This A/V system is designed to link directly to *Dedham Television's* cable access Government TV Channels for the three major cable TV providers: *Comcast*, *Verizon*, and *RCN*. The broadcast quality and reliability of the system will provide an invaluable service to the residents of *Dedham Massachusetts*. Furthermore, with *Dedham Television's* new Internet *Digital Simulcasting and Video-on-Demand video-streaming platforms*, the taxpayers of the town can watch any municipal meeting or event at their convenience.

An investment in the **Sony HD Robocams** (see *Equipment & Hardware*) for the new *Dedham Town Hall* will make recording of municipal meetings and other events much easier and more reliable. These cameras can be operated remotely from *Dedham Television's* studio ensuring that staff and the best broadcast technology will always be on-hand to service the residents of the Community of Dedham Massachusetts.

Dedham Television's in-studio live TV and recorded TV broadcast cameras need upgrading to the best *4K Ultra-HD* technology to continue to stay current with the high-quality broadcast standards of today and tomorrow. Also the studio requires wireless microphones and new sound mixing equipment to replace its aging systems, and new *65 inch Ultra-HD displays* for both internal sound stage use and external use (on studio building face with an all-weather enclosure, running programming 24/7).

Typical yearly software and licensing costs revolve around maintaining our subscription fees to *Adobe* and *Microsoft* but additional software upgrades and membership fees to online services are factored into the yearly estimate of **$5,000**. For example: subscribing to *UStream's Producer Live Video-Streaming Service* averages around $1,200 a year, *Lynda.com Online Training* is around $400 per year, *Vimeo Pro* for our *Video-on-Demand* platforms is also around $400 per year. These and other unforeseen costs are a natural part of a yearly software budget.

Capital Expenditure Detail

Infrastructure

Build Out	Detail	Cost
Dedham Town Hall Audio/Video (A/V) Cable Access TV Broadcast System (see Appendix D — Vendor Quotes for details).	Quote provided by **Access A/V Incorporated**.	$173,389
Dedham Town Hall A/V Advanced Lighting Options for cable access TV broadcast (see *Appendix D — Vendor Quotes* for details).	Speculative Quote provided by **Integrated Solutions Group**.	$15,262
Board of Selectmen Press Room Auditorium Options (see *Appendix D — Vendor Quotes* for details)	Speculative Quote provided by **Integrated Solutions Group**.	$21,800
	TOTAL:	$210,451

Equipment & Hardware

Specific Item	Detail	Cost
Sony BRCH700HD 1/3 type 3CCDs P/T/Z Color Video Robotic Camera	*Dedham Town Hall*, robotic camera system for HD quality broadcast and recording, 2 x @ $8,995 ea.	$17,990
Sony PXW-Z100 4K Handheld XDCAM Camcorder	*Dedham Television* in-studio 4K camera upgrade, 4 x @ $4,999 ea.	$19,996
Shure ULXS14/85 Lavalier Wireless System, J1	*Dedham Television* in-studio wireless microphone system (microphones, transmitters, etc.), 2 x @ $799 ea.	$1,598
Yamaha TF3 Digital Mixing Console	*Dedham Television* new HD audio high-performance in-studio sound mixer for Studio Control Room	$2,999
ClearSonic IsoPac B (IsoPac B Drum Iso Booth)	*Dedham Television* live music performance feature equipment for music programs.	$1,732.92
Samsung 7 Series UN65JU7100F - 65" 3D LED Smart TV - 4K UltraHD	In-studio display monitors for programs, plus an exterior monitor for promotional presentations, 3 x @ $1,545 ea.	$4,635
65” Commercial NXG DS-700 Outdoor Ultra-HD TV Enclosure	Used to protect Ultra-HD TV monitor on *Dedham Television* studio exterior while constantly showing programming.	$5,588
	TOTAL:	$54,538.92

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ $69.99 per user/month	$699.90 Monthly/$8,398.80 Yearly
Microsoft Office 365 Business	5 licenses @ $8.25 per user/month	$41.25 Monthly/$495 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $5000
	TOTAL:	$13,893.80

Year Two Total

$278,883.72

Year Three Capital Expenditures

Capital Expenditure Summary

Dedham Television requires new spaces to be built out in order to accommodate the needs of entertainment and commercial video productions. This includes a **Green Room** waiting area for talent before a shoot begins and a **Makeup & Wardrobe Room** for talent to be prepared before getting in front of the cameras. In order to provide our producers, partners, clients, and the community at large the proper professional service as state-of-the-art TV/Film production studio, then we need the proper spaces to accommodate all who work and visit here.

Furthermore, in order to keep up with *Building Code Safety and Accessibility*, and new **handicap bathroom** needs to be built on the first level of the studio with easy access to the main studio sound stage. In *Year Six Capital Expenditures* a building elevator system will be included.

In *Year Three Capital Expenditures*, *Dedham Television* also requires new **4K Ultra-HD field camera**, new portable LED lighting systems for location shoots, a new wireless intercom system between control room and sound stage personnel, and a brand new van to ferry crew and equipment to location shoots.

And finally the standard aforementioned software and licensing budgetary expenditures are listed here.

Capital Expenditure Detail

Infrastructure

Upgrade/Renovation	Detail	Cost
New Makeup & Wardroom Room	Sectioning off existing 2nd floor space and renovating it for Makeup & Wardrobe complete with vanities & lighted mirrors, and dressing rooms & costume racks.	Est. $15,000
New Handicap Bathroom		
New Loft Renovation – Green Room/Observation Deck	In-studio loft renovated for production observation on a closed set with soundproofing and comfortable seating for talent waiting for cast call to soundstage floor.	Est. $25,000
New Handicap Bathroom	Handicap accessible bathroom on studio first floor with easy access to sound stage.	Est. $7500
	TOTAL:	$47,500

Equipment & Hardware

Specific Item	Detail	Cost
New *Dedham Television* Vehicle (e.g. Van or Caravan)	New crew and equipment vehicle for location shoots. Vehicle must be large enough for up to 4 personnel and loads of camera, sound, and lighting equipment.	Est. $30,000
Panasonic HC-X1000 4K DCI/Ultra HD/Full HD Camcorder	*Dedham Television* 4K field camera upgrade, 4 x @ $2,997.99 each.	$11,991.96
Ikan IFB1024 Featherweight Bi-Color LED Light with Anton Bauer and Sony V-Mount Battery Plates	Portable field lights for location shoots, 4 x @ $989.10 ea.	$3,956.40
Eartec Co COMSTAR-XT5 5 Person Wireless Intercom System	In-studio communications systems between sound stage floor crew and control room.	$3,595
	TOTAL:	$49,543.36

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ $69.99 per user/month	$699.90 Monthly/$8,398.80 Yearly
Microsoft Office 365 Business	5 licenses @ $8.25 per user/month	$41.25 Monthly/$495 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $5000
	TOTAL:	$13,893.80

Year Three Total

$110,937.16

Year Four Capital Expenditures

Capital Expenditure Summary

No *Infrastructure Capital Expenditures* are slated for *Year Four*.

An additional set of *Ultra-HD field cameras* are required in this year as they take the most abuse and need constant replacement.

Software and licensing costs remain mostly the same.

Capital Expenditure Detail

Infrastructure

No *Infrastructure Capital Expenses* are slated for *Year Four*.

Equipment & Hardware

Specific Item	Detail	Cost
Panasonic HC-X1000 4K DCI/Ultra HD/Full HD Camcorder	*Dedham Television* additional field 4K cameras, 4 x @ $2,997.99 ea.	$11,991.96
	TOTAL:	$11,991.96

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ $69.99 per user/month	$699.90 Monthly/$8,398.80 Yearly
Microsoft Office 365 Business	5 licenses @ $8.25 per user/month	$41.25 Monthly/$495 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $5000
	TOTAL:	$13,893.80

Year Four Total

$25,885.76

Year Five Capital Expenditures

Capital Expenditure Summary

Year Five Capital Expenditures will see a dramatic overhaul to the *Dedham Television Control Room*, renovating every aspect of it from hardware racks, fiber optics and other equipment, to furniture.

New in-studio equipment upgrades from *Ultra-HD cameras* to sound equipment will be necessary as older equipment is utterly consumed and has to be replaced. The costs for these replacements are estimated as no one is really sure what new more advanced *Equipment & Hardware* will be available and how much they will cost.

The same goes for the *Software & Licensing* category. All estimates are based on market trends projected over a few years.

> *Note: at this point **Dedham Television and Media Engagement Center** will be providing many non-profit organization our previously owned equipment to help service their video production needs. Groups such as the new **Senior Center**, the **Dedham Community House**, and the **Manor Association** will benefit from our previous years' capital expenditures.*

Capital Expenditure Detail

Infrastructure

Renovation	Detail	Cost
Control Room Renovation	*Dedham Television* studio control room complete renovation: new hardware racks, new monitors, new furniture, new fiber optic cabling, new WiFi networking hardware, new paint, new carpet, studio window, etc.	Est. $40,000
	TOTAL:	$40,000

Equipment & Hardware

Specific Item	Detail	Cost
New Studio Ultra-HD Cameras, robotically controlled	*Dedham Television* in-studio 4K camera upgrade, 4 x @ $8,000 ea.	$32,000
New Wireless Lavalier Microphone System	*Dedham Television* in-studio wireless microphone system (microphones, transmitters, etc.), 2 x @ $960 ea.	$1,920
New Digital Audio Mixing Console	*Dedham Television* new HD audio high-performance in-studio sound mixer for Studio Control Room	$3,600
	TOTAL:	$37,520

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $90 per user/month	Est. $10,800 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $15 per user/month	Est. $1,800 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$20,600

Year Five Total

$98,120

Year Six Capital Expenditures

Capital Expenditure Summary

In order to comply with newer building codes, **OSHA** regulations, and the **Americans With Disabilities Act**, *Dedham Television* and its physical studio require a fully-functioning standard **building elevator** for its premises.

At this point in time all of *Dedham Television's* computer and mobile device systems for its staff and *Media Engagement Center* will need replacing. Given that market trends for newer more advance systems have rising costs, the following estimate factors in: greater processing power, greater mobility computing and wider remote access functioning, larger mobile device memory, increases in the number of staff and students who need new computers, greater workload demands, backup systems, and an on-site network server infrastructure.

Capital Expenditure Detail

Infrastructure

Renovation	Detail	Cost
Building Elevator Installation	*Dedham Television* studio requires a full-functioning building elevator to comply with **OSHA** regulations, new building codes, and **Americans With Disabilities Act.**	Est. $80,000
	TOTAL:	$80,000

Equipment & Hardware

Specific Items	Details	Costs
New computer workstations, new video editing and rendering bays, new mobile devices, and a sever-based network infrastructure.	Based on computer and mobile device yearly sales market trends.	Est. $100,000
	TOTAL:	$100,000

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $90 per user/month	Est. $10,800 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $15 per user/month	Est. 900 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$19,700

Year Six Total

$119,700

Year Seven Capital Expenditures

Capital Expenditure Summary

Year Seven Capital Expenditures will see mostly a round of routine upgrades and replacements for aging and used equipment.

No *Infrastructure Capital Expenditures* are slated for *Year Seven*.

The usual round of *Software & Licensing* costs will occur here.

Capital Expenditure Detail

Infrastructure

No *Infrastructure Capital Expenditures* are slated for *Year Seven*.

Equipment & Hardware

Specific Item	Detail	Cost
New Studio Ultra-HD Cameras, robotically controlled	*Dedham Television* in-studio 4K camera upgrade, 4 x @ $10,000 ea.	$40,000
New Field Ultra-HD Cameras	*Dedham Television* additional field 4K cameras, 4 x @ $5,000 each.	$20,000
New Ultra-HD Monitors	Replaces old Ultra-HD monitors plus an addition one, covered in Year Two Capital Expenditures, 4 x @ $2,000 ea.	$8,000
	TOTAL:	$68,000

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $90 per user/month	Est. $10,800 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $15 per user/month	Est. 900 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$19,700

Year Seven Total

$87,700

Year Eight Capital Expenditures

Capital Expenditure Summary

Year Eight Capital Expenditures will see a full-scale renovation to the *Dedham Television Studio and Media Engagement Center*. This renovation will be badly needed after years of use from production companies, businesses, students, community organizations, producers, staff, and more.

No new *Equipment & Hardware Capital Expenditures* are slated for *Year Eight*.

The usual round of *Software & Licensing* costs will occur here.

Capital Expenditure Detail

Infrastructure

Renovation	Detail	Costs
Full scale studio renovation: every room, every floor, all furniture replaced, all walls painted, new rooms, reconfigured existing rooms, etc.	See Renovation Column.	$100,000

Equipment & Hardware

No new *Equipment & Hardware Capital Expenditures* slated for *Year Eight*.

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $90 per user/month	Est. $10,800 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $15 per user/month	Est. 900 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$19,700

Year Eight Total

$119,700

Year Nine Capital Expenditures

Capital Expenditure Summary

Essentially, this year will see a round of new camera upgrades to the forthcoming ***8K Super-Ultra-HD*** video standard!

No *Infrastructure Capital Expenditures* are slated for *Year Seven*.

Software & Licensing costs will continue to increase.

Capital Expenditure Detail

Infrastructure

No Infrastructure Capital Expenses slated for Year Seven.

Equipment & Hardware

Specific Item	Detail	Cost
New Studio Super-Ultra-HD 8K Cameras, robotically controlled	*Dedham Television* in-studio 8K camera upgrade, 4 x @ $20,000 ea.	$80,000
	TOTAL:	$80,000

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $100 per user/month	Est. $12,000 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $20 per user/month	Est. $1,200 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$20,600

Year Nine Total

$100,600

Year Ten Capital Expenditures

Capital Expenditure Summary

Year Ten Capital Expenditures will be dominated by a round of major upgrades for the *Dedham Town Hall*, to a brand new **Ultra-HD 4K** Audio/Video (A/V) network infrastructure. All new *4K A/V* equipment will be required, replacing the already *aging HD systems* put into place eight years prior in **2017**.

Equipment & Hardware will simply be **4K robocams** (robotic cameras) and new audio mixing board equipment.

Software and Licensing will basically be the same as in *Year Nine*.

Capital Expenditure Detail

Infrastructure

Upgrades	Detail	Cost
Dedham Town Hall Audio/Video (A/V) Cable Access TV Broadcast System Upgrades	2026 Projection based on quote provided by **Access A/V Incorporated** plus 20%.	$210,000
Dedham Town Hall A/V Advanced Lighting Upgrades.	2026 Projection based on speculative Quote provided by **Integrated Solutions Group** plus 20%.	$18,600
	TOTAL:	$228,600

Equipment & Hardware

Specific Item	Detail	Cost
Ultra-HD 4K Video Robotic Cameras	*Dedham Town Hall*, robotic camera system for Ultra-HD 4K quality broadcast and recording, 2 x @ $10,800 each (projected 2026 cost with 20% added).	$21,600
New A/V Ultra-HD Mixing Boards	Dedham Town Hall additional on-site A/V equipment (projected 2026 cost with 20% added).	$3,600
	TOTAL:	$25,200

Software & Licensing

Software Package	Per User/Monthly Subscription	Cost
Adobe Creative Cloud Complete	10 licenses @ Est. $100 per user/month	Est. $12,000 Yearly
Microsoft Office 365 Business	5 licenses @ Est. $20 per user/month	Est. $1,200 Yearly
Additional Software Budget	Unspecified software needs that always come up yearly.	Est. $8000
	TOTAL:	$20,600

Year Ten Total

$274,400

In Conclusion

Dedham Television and Media Engagement Center is committed to helping the community in many ways from providing valuable services covering municipal meetings to educational events, emergency broadcasting information, and providing previously owned cameras and equipment to various non-profit organizations such as the *Senior Center*, the *Dedham Community House*, and the *Manor Association*.

Part of that commitment is to keep up with the changing pace of digital broadcast media from infrastructure to media distribution technologies and beyond. Only in this way can we ensure that the residents of the *Community of Dedham Massachusett*s (and its cable subscribers) gets the best possible public media broadcasting services and quality programming from our studio.

To that effort this **2016-2026 10-Year Capital Expenditure Budget Proposal** for ***Dedham Television*** seeks to illustrate the need for further investment in the aforementioned upgrades, enhancements, renovations, and adoption of new technologies as cable access television is no longer a legacy low-budget holdover from the early days of cable television but **an active player** in a digital broadcast and global Internet media streaming world.

Dedham Television "Integrated Media for a Connected Community!"

Appendix A — Marketing Collateral

The promotional flyer on the following pages is a marketing collateral sample that illustrates *Dedham Television*'s new *Business-to-Business Strategic Marketing Initiative*.

Our *502 Sprague Street Studio* is an ideal location to attract both Corporate and Entertainment industry clients from as far away as Hollywood, New York City, and beyond!

Given the right amount of modern-day equipment, resources, and marketing campaigns, *Dedham Television* can easily compete with better and more established production companies and other studios at a highly competitive rate.

As illustrated in *Appendix C — Charts and Graphs* the Internet and digital video-streaming are quickly becoming the standard for broadcast, marketing, and commercial media. This market is ripe for revenue-generating opportunities. *Dedham Television* is poised to take full advantage of this new enterprise in a way that was not even a consideration ten years ago.

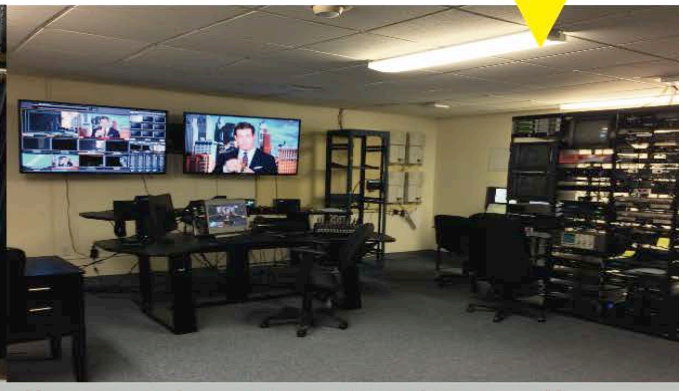
B2B with DTV! is just the beginning of a suite of new business opportunities and a great example of how cable access television is growing on a whole new 21st Century digital media broadcast level!

Dedham TV

> Professional Services

B2B With DTV!

www.DedhamTV.com



// Questions

You're in a crisis client situation and you ask yourself, "Where can I go to get a professionally produced video for TV or social media that can be turned around so quickly we will not miss a news cycle?

Your competition already has a *YouTube*, *Vimeo, Metacafe*, or *Dailymotion* video-streaming channel, they are getting hundreds of thousands — perhaps millions — of pairs of eyes looking at their products or services. That's when you ask yourself, "How do I get in on this video-streaming and marketing gold mine?"

When you *Google* your client's industry, and you see their competition listed higher in the results than yours, it prompts you to ask yourself, "How did they manage to get on the first page, and why is my client on the second?"

The training video your employees just suffered through looks like a homemade *YouTube* video about cats. They turn to *Lynda.com* or *Udemy.com* for the knowledge you should be providing. And finally you ask yourself, "Is it time to get a new training video? One that will be concise, engaging, truly instructive, and something we might even make money off of by streaming it on *Lynda*?"

// Dedham Television Studios Full Production Capabilities Bring Quick Turn Around For You And Your Clients!

How do you do all of this without paying a fortune to an ad agency, video production company, or a strategic marketing consultancy?

The Answer is Clear: *B2B with DTV!*

At a time of opportunity crisis, when you need that digital message out yesterday to go head-to-head with your competition: you and your client's voice, marketing message, and value proposition must be heard in a clear, effective, and professional way.

Dedham Television and *Media Engagement Center's* Professional Services can take you all the way.

We offer a whole host of *Business-To-Business* digital marketing services at exceptionally competitive rates. And having the benefit of a fully equipped film and television *Studio* — that happens to be *the largest publicly-owned studio in New England* — along with a state-of-the-art *Media Engagement Center* (maxed out with the latest and greatest video production and post-production equipment and software), gives us a distinctive edge above other Advertising/Marketing/Video Production entities.

Here's Just a Quick Look of What We Have to Offer:

> State-of-the-art Film/TV Studio — complete with soundproof walls, rigging, a wide array of overhead lighting options, a massive green screen, and a huge loading bay that directly loads into the studio.

> Top-of-the-line Video Production Equipment — HD digital cameras, LED lights and stands, booms, jibs, lavalier & shotgun microphones, lighting panels, background panels, props, sets, etc.

> State-of-the-art Broadcast Booth — live Internet video-streaming in High Definition (HD) quality, over-the-air and Internet simulcast broadcasting (HD available for *RCN* cable subscribers).

> Latest Video Production Resources — DVD & Blu-ray authoring (with custom menus and chapter stops), digital video dubbing, and legacy video media transcoding capabilities.

Keep Going! There's More...>>>

Integrated Media for a Connected Community!

// Rates At-A-Glance

Rates include but are not limited to:

> Day Rate — *$2500* (*Studio* and *Media Engagement Center*, not including required *studio manager* at *$500* per/day).

> Half Day Rate — *$1500* (*Studio* and *Media Engagement Center*, not including required *studio manager* at *$300* per/day).

> Hourly Rate — *$500* per/hour (*Studio* and *Media Engagement Center*, not including required *studio manager* at *$75* per/hour).

// Dedham Television Has It All!

> Dedicated Function Rooms — makeup room, green room (actually blue), conference room, meditation room, and a spiritual medium consultation room (really!).

> Lots of Space — live events and film/TV premiere space for audiences up to 100 people — available for public and private use. Plus, live audience broadcast of events in HD over cable, Internet, and *Video-On-Demand* channels. And parking for over 40 vehicles.

> Onsite Professional Post-Production — digital video post-production facility with access to HD rendering, media transcoding, and editing workstations using *Final Cut Pro X*, *Adobe Premiere CC*, *Adobe After Effects CC*, *Adobe Photoshop CC*, *Adobe Audition CC*, *Cinema 4D*, and more!

> Professional Training Onsite — training facility for companies who need their team members to learn video production, cloud-based digital media management, video editing, social media marketing, *SEO/SEM* & web-building, and other professional services.

Why Choose Dedham Television?

Aside from our state-of-the-art video production and post-production *Studio* and *Media Engagement Center*, we offer the most competitive rates in the industry.

Because we are a *one-stop shop* for all things digital video production for film, television, webisode, commercial/promotional, or training projects the overhead savings are passed down to you and your clients.

When you work with *Dedham Television*, you get the finest, most experienced videographers, editors, trainers, multi-platform broadcasters, social media and search engine marketers, and public relations and professional writers in the local *Boston* and *New England* area markets.

// For More Info

To find us on The Web, visit:

WWW.DEDHAMTV.COM

Use our *Contact Us* page to send us a detailed inquiry about your project.

Remember to include:

- Name of Primary Contact
- Company or Organization Name
- Contact Info (Phone/EMail)
- Description of Project

Or just shoot us an Email/Phone call, see below.

// Contact Us

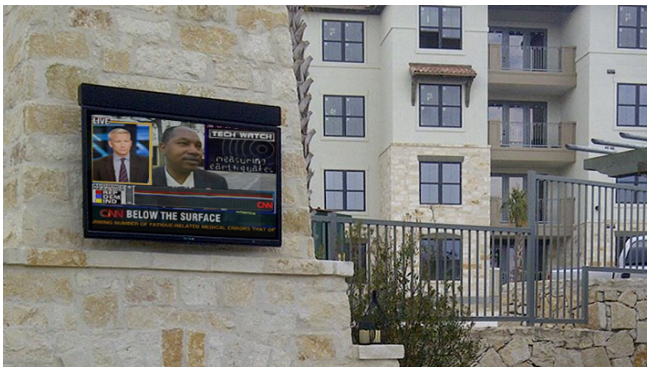
Dedham Television &
Media Engagement Center

502 Sprague Street
Dedham, MA 02026

781.326.2107
info@dedhamtv.com

Appendix B — Equipment & Build Out Exhibits

UHDTV
Ultra High Definition 4K


TECH WATCH
BELOW THE SURFACE

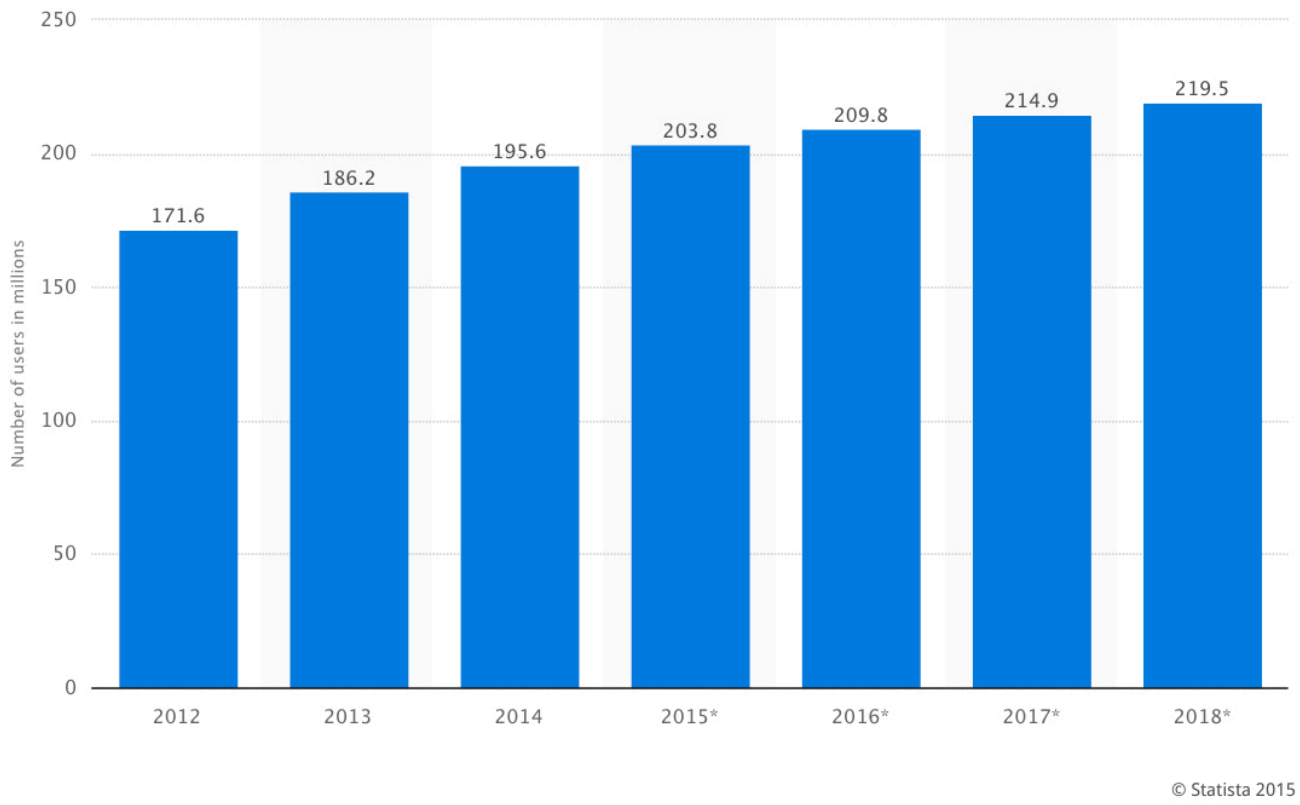
4K
Panasonic
LEICA

Appendix C — Charts and Graphs

Number of digital video viewers in the United States from 2012 to 2018 (in millions)

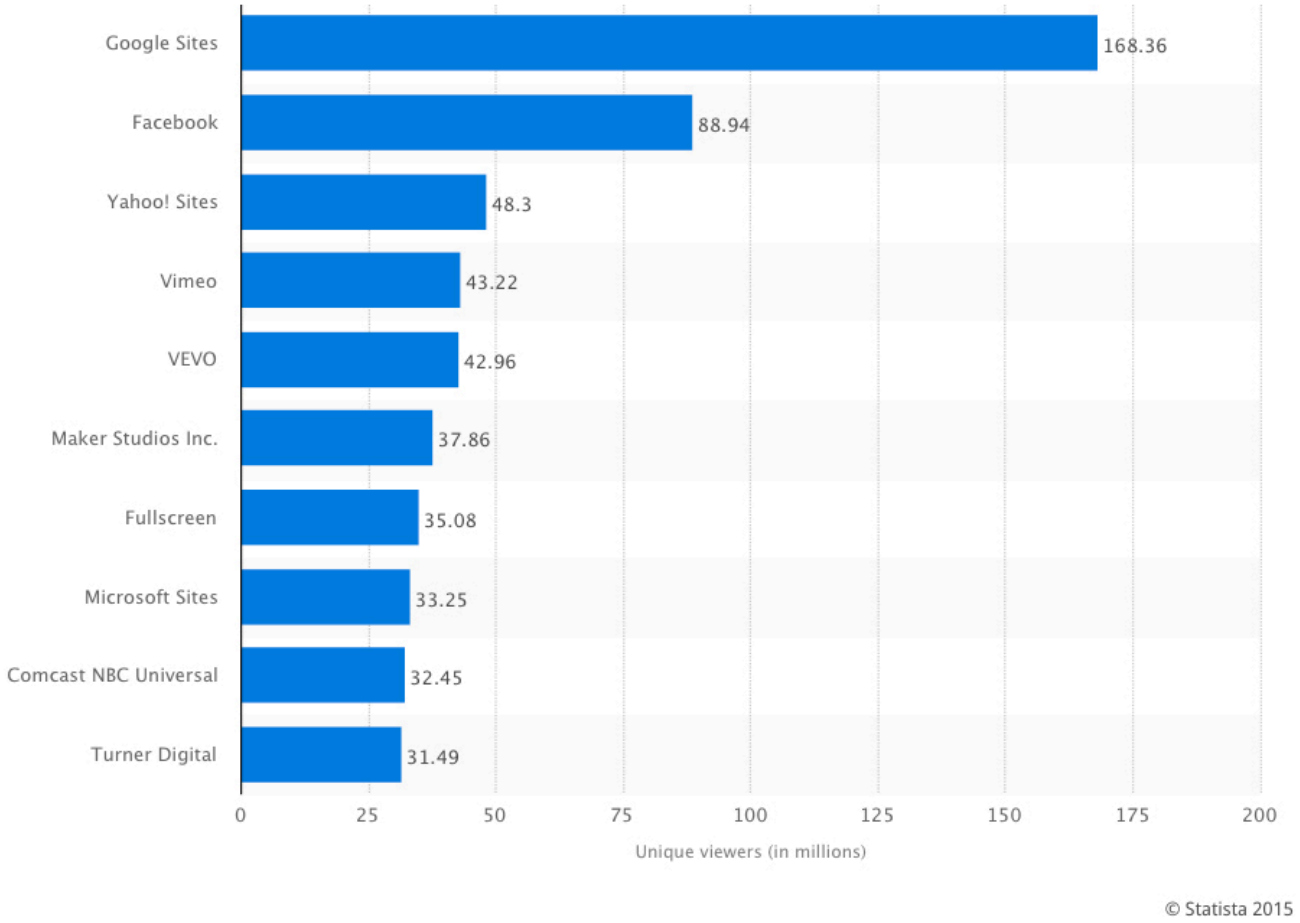
The statistic shows the number of digital video users in the United States from 2012 to 2018. According to the forecast, the number of online video viewers will amount to 209.8 million users in 2016, up from 186.2 million in 2013.

Show more



Most popular online video properties in the United States as of August 2015, ranked by unique viewers (in millions)

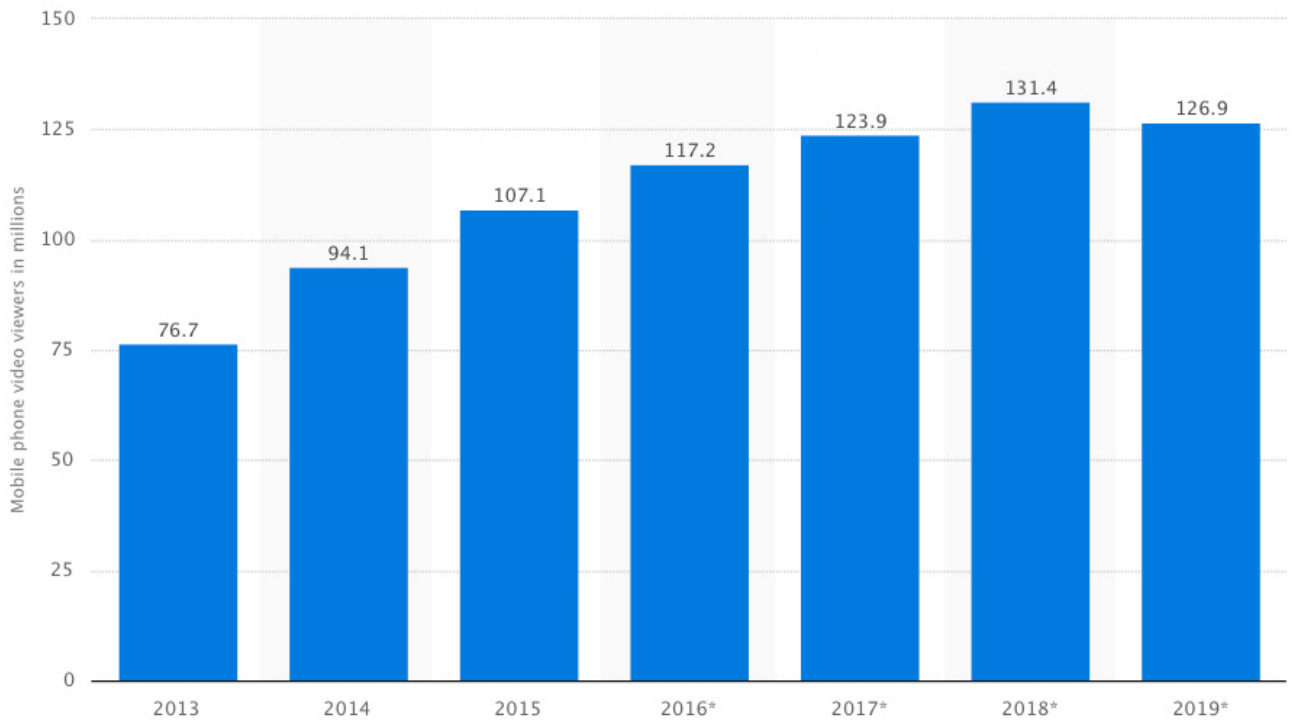
The statistic shows the most popular online video properties in the United States in August 2015, ranked by number of unique video viewers. During the survey period, Yahoo sites were ranked third with approximately 48.3 million unique viewers. Overall, more than 191 million million U.S. online users accessed digital video content during that month.



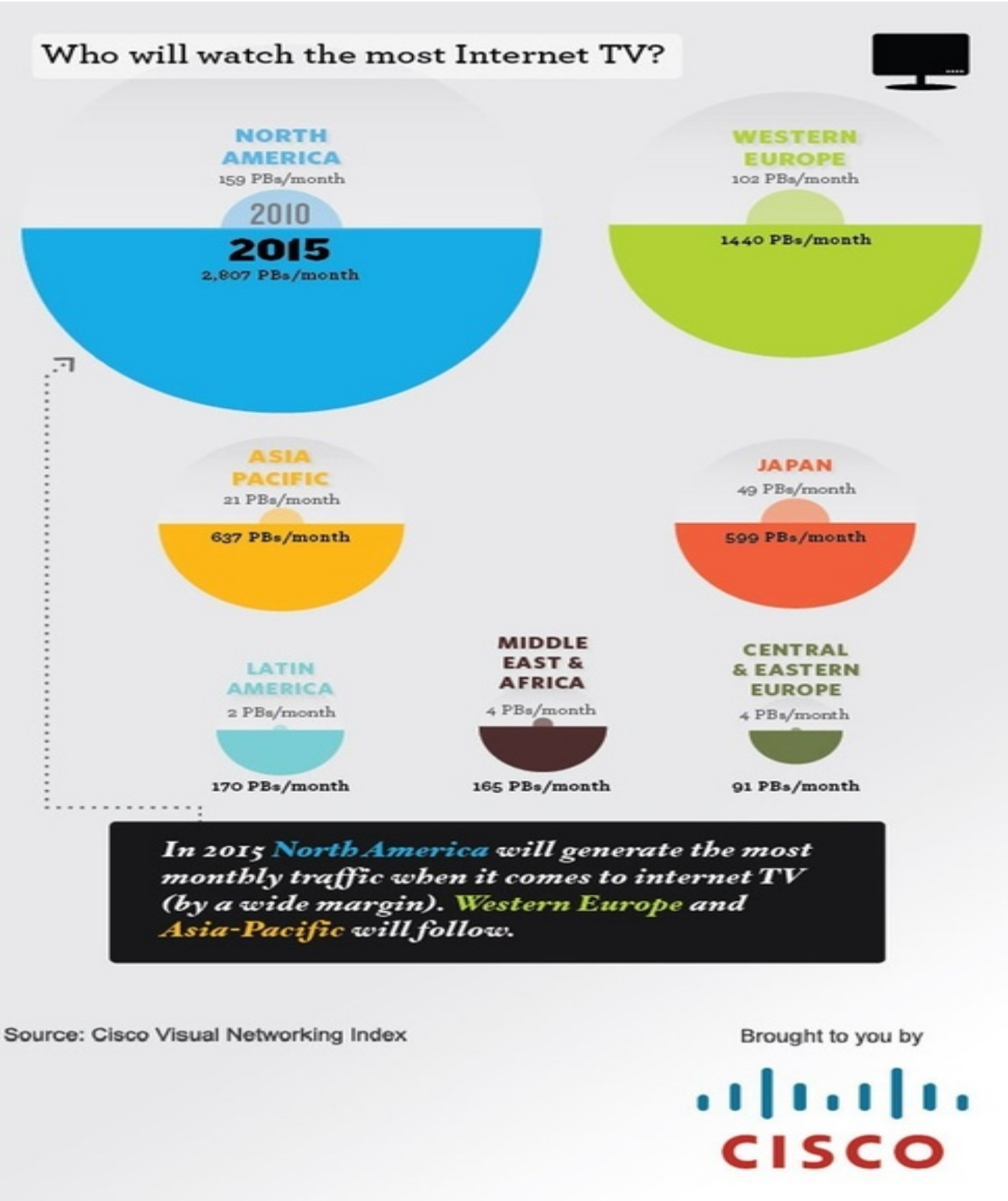
*Note: **Google** owns **YouTube** (the most popular Internet video-streaming service); therefore, Google stats are for YouTube as well.*

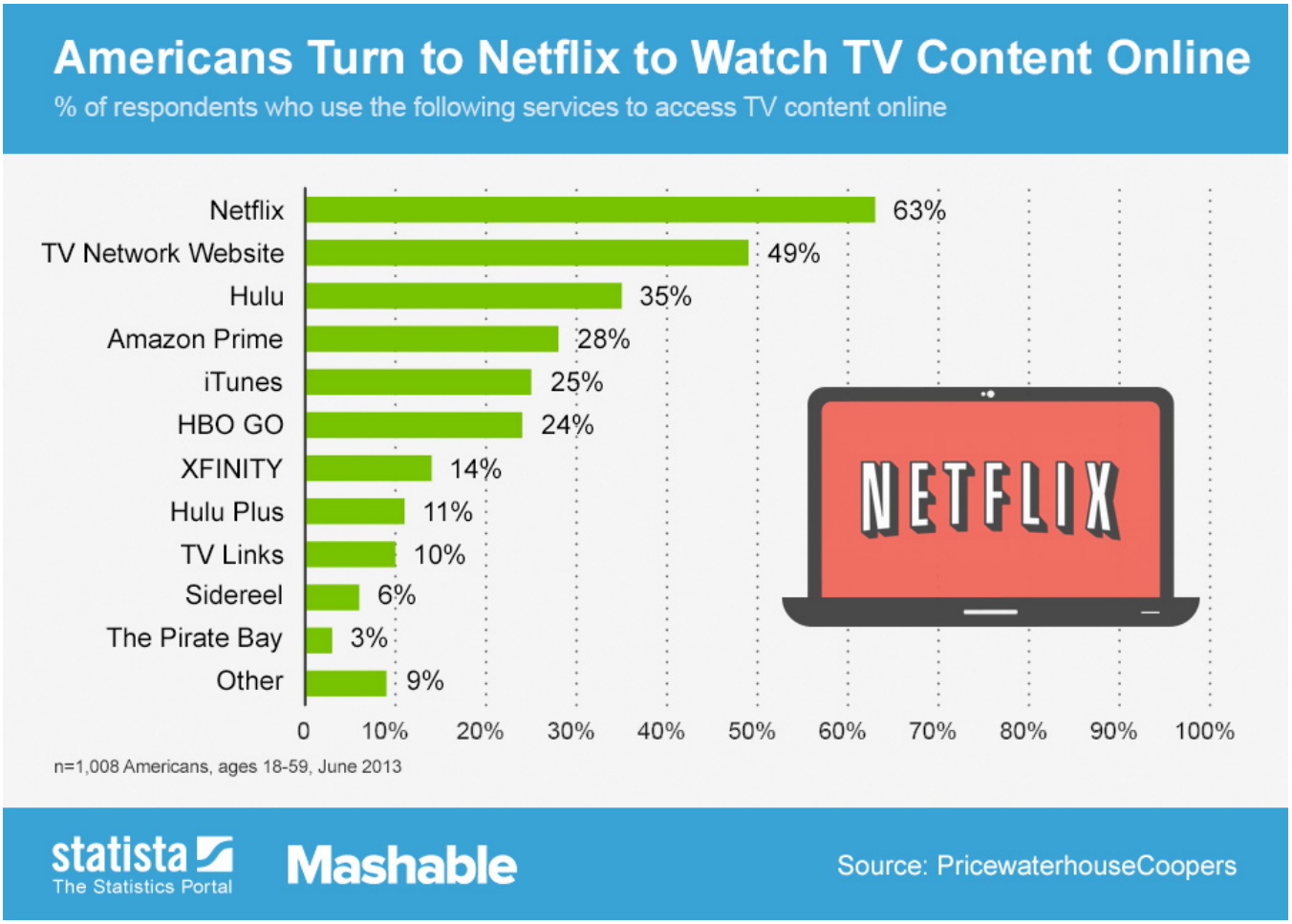
Number of mobile phone video viewers in the United States from 2013 to 2019 (in millions)

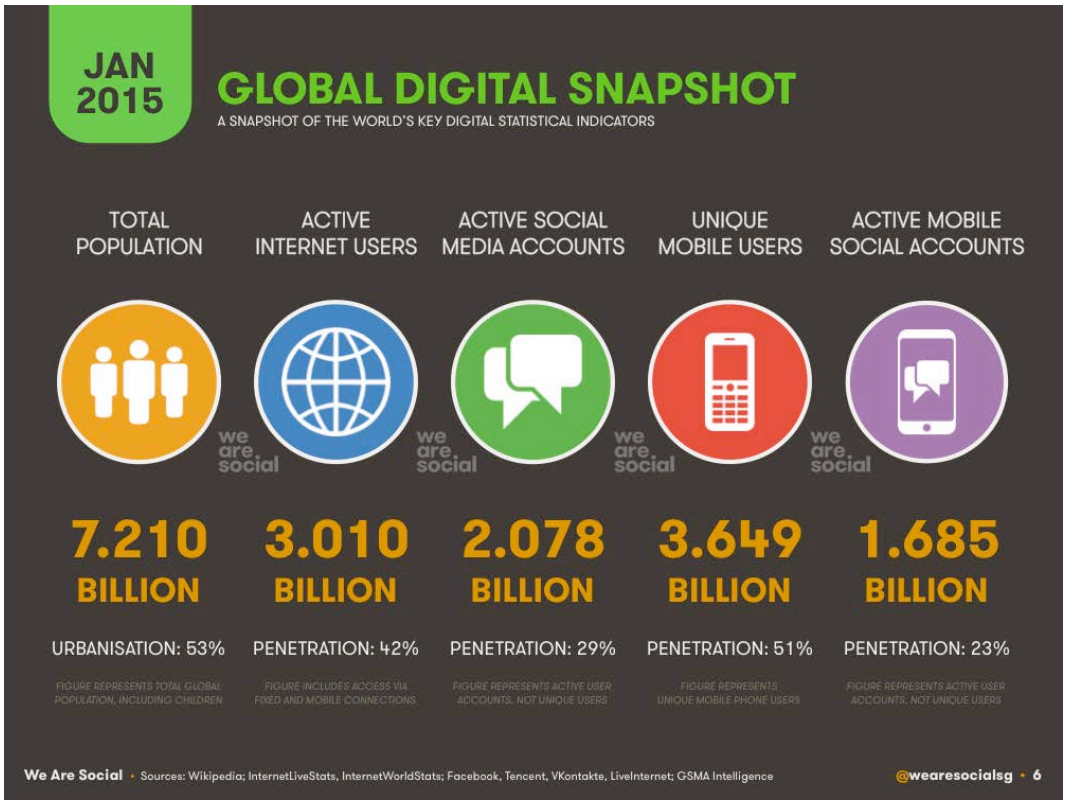
This statistic gives information on the number of mobile phone video viewers in the United States from 2013 to 2015, with forecast until 2019. In 2014, 94.1 million U.S. users were watching video content on their mobile phones. These figures are expected to grow to more than 126.9 million in 2019.



© Statista 2015

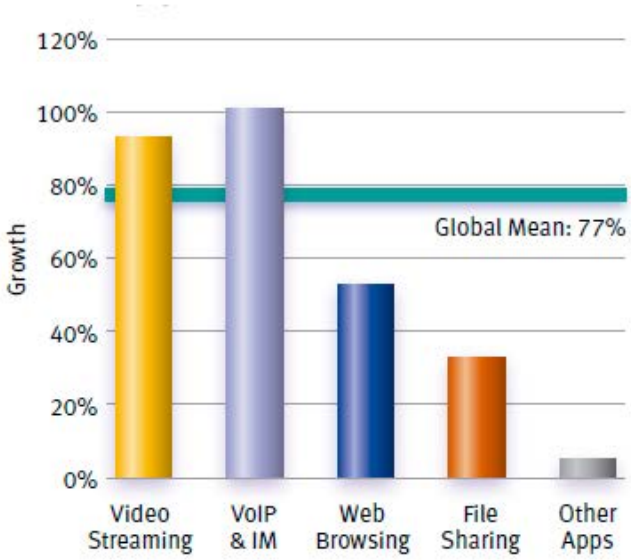

Who will watch the most Internet TV?
NORTH AMERICA
159 PBs/month
2010
2015
2,807 PBs/month
WESTERN EUROPE
102 PBs/month
1440 PBs/month
ASIA PACIFIC
21 PBs/month
637 PBs/month
JAPAN
49 PBs/month
599 PBs/month
LATIN AMERICA
2 PBs/month
170 PBs/month
MIDDLE EAST & AFRICA
4 PBs/month
165 PBs/month
CENTRAL & EASTERN EUROPE
4 PBs/month
91 PBs/month
In 2015 North America will generate the most monthly traffic when it comes to internet TV (by a wide margin). Western Europe and Asia-Pacific will follow.
Source: Cisco Visual Networking Index
Brought to you by
CISCO


Americans Turn to Netflix to Watch TV Content Online
% of respondents who use the following services to access TV content online
Netflix 63%
TV Network Website 49%
Hulu 35%
Amazon Prime 28%
iTunes 25%
HBO GO 24%
XFINITY 14%
Hulu Plus 11%
TV Links 10%
Sidereel 6%
The Pirate Bay 3%
Other 9%
0 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
NETFLIX
n=1,008 Americans, ages 18-59, June 2013
statista The Statistics Portal
Mashable
Source: PricewaterhouseCoopers

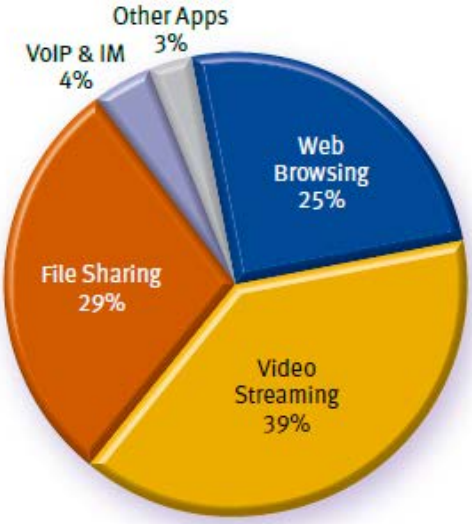

JAN 2015
GLOBAL DIGITAL SNAPSHOT
A SNAPSHOT OF THE WORLD'S KEY DIGITAL STATISTICAL INDICATORS
TOTAL POPULATION
ACTIVE INTERNET USERS
ACTIVE SOCIAL MEDIA ACCOUNTS
UNIQUE MOBILE USERS
ACTIVE MOBILE SOCIAL ACCOUNTS
we are social
7.210 BILLION
3.010 BILLION
2.078 BILLION
3.649 BILLION
1.685 BILLION
URBANISATION: 53%
PENETRATION: 42%
PENETRATION: 29%
PENETRATION: 51%
PENETRATION: 23%
FIGURE REPRESENTS TOTAL GLOBAL POPULATION, INCLUDING CHILDREN
FIGURE INCLUDES ACCESS VIA FIXED AND MOBILE CONNECTIONS
FIGURE REPRESENTS ACTIVE USER ACCOUNTS, NOT UNIQUE USERS
FIGURE REPRESENTS UNIQUE MOBILE PHONE USERS
FIGURE REPRESENTS ACTIVE USER ACCOUNTS, NOT UNIQUE USERS
We Are Social • Sources: Wikipedia; InternetLiveStats, InternetWorldStats; Facebook, Tencent, VKontakte, LiveInternet; GSMA Intelligence
@wearesocialsg • 6

JAN 2015
ANNUAL GROWTH
GROWTH TRENDS FOR THE COUNTRY'S KEY DIGITAL STATISTICAL INDICATORS
GROWTH IN THE NUMBER OF ACTIVE INTERNET USERS
GROWTH IN THE NUMBER OF ACTIVE SOCIAL MEDIA ACCOUNTS
GROWTH IN THE NUMBER OF MOBILE SUBSCRIPTIONS
GROWTH IN THE NUMBER OF ACTIVE MOBILE SOCIAL ACCOUNTS
we are social
+37%
+8%
+6%
+9%
SINCE JAN 2014
SINCE JAN 2014
SINCE JAN 2014
* SINCE JUN 2014
We Are Social • Sources: InternetLiveStats, InternetWorldStats; Facebook, Tencent, VKontakte; GSMA Intelligence; We Are Social research & analysis
@wearesocialsg • 51

Bandwidth & Application Growth & Breakdown



Growth in mobile data usage, H1/11



Mobile data usage broken down by top applications, H1/11

Appendix D — Vendor Quotes

TelVue Quote

The following pages contain the latest quote (sans the Terms & Conditions) and extensive details from **TelVue** concerning their **HyperCaster & Additional Broadcast Server Solutions**.

TelVue Quotation - Confidential

Created Date	3/16/2015
Quote Number	Q-011342
Account Name	Dedham TV
Name	Donna Greer
Title	Executive Director
Phone	(781) 326-2107
Email	dedhamtv@gmail.com

Quote Terms Expire 30 Days from Issue Date

TelVue Contact Information

Prepared By	Charles Paige
E-mail	cpaige@telvue.com
Phone	(800) 885-8886
Fax	(856) 866-7411

< USE FAX No. TO SUBMIT SIGNED QUOTE

Customer Address Information

Account Name	Dedham TV	Ship To Name	Dedham TV
Billing Address	502 Sprague Street Dedham, MA 02026		

The following page contains a quote for TelVue products and services.

Prior to signing the quote in indication of your acceptance as a purchase order, please confirm the billing contact information and shipping information above.

If you have any questions please contact your Telvue contact (identified above).

Product	TC Elig	Line Item Description	List Price	Quantities	Discount	Sales Price	Unit Net Price	Ext Net Price

Company Name TelVue

HyperCaster B1000-IPTV	Yes	1 RU Digital Video Server, Intel Quad Core Xeon CPU, 8GB RAM, 4 SATA II HDD, SSD For OS, RAID5 For Media, Dual GigE, Network Share Ready, CBR or VBR MPEG-2 TS, 4 IP Channels (20 Max.), StreamThru™, Redundant PS, ATSC & CableLabs® SD&HD, Usable Storage:5.5	$16,950.00	1	20.00%	$16,950.00	$13,560.00	$13,560.00
HyperCaster IP Capture	Yes	Capture An HD / SD MPEG-2 Transport Stream On Schedule Or On Demand, File Available For Playout Or Transfer When Capture Is Complete	$1,500.00	1	20.00%	$1,500.00	$1,200.00	$1,200.00
HyperCaster Archiving	Yes	Free with purchase of NAS--HyperCaster Archiving Module enables integration with any standard NAS running SMB or FTP for advanced archiving workflow. This extends the HyperCaster content management to content on networked Archive Servers	$2,000.00	1	100.00%	$2,000.00	$0.00	$0.00
HyperCaster Channel - H264	Yes	Option - Add H.264 Support To HyperCaster Series, All Channels On HyperCaster MUST Be Upgraded To H.264 At The Same Time	$500.00	4	100.00%	$500.00	$0.00	$0.00
STD-SW-CTRL	Yes	Option - Switcher Control Software, Supported Switcher	$500.00	1	100.00%	$500.00	$0.00	$0.00
HDE-CSV-QAM	No	MPEG-2 HD Encoder – Inputs - 1 x HD-SDI, 1 x YCbCr, 1 x Composite, 1 x VGA and Outputs - 1 x IP, 1 x ASI, 1 x QAM	$3,061.25	4	10.00%	$3,061.25	$2,755.13	$11,020.50
HDE-3MCH	No	Holds (3) HDE-CHV-QAM Encoder Modules, 1RU	$123.75	2	10.00%	$123.75	$111.38	$222.75
Black Magic - MINI-SDI-TO-ANALOG	No	Black Magic SDI to Analog Mini-Converter/TPCL	$295.00	3	10.00%	$295.00	$265.50	$796.50
InfoVue Pro	Yes	Professional InfoVue digital signage player. 1 Ru rack mount chassis, Core i7 3.2GHz, 4GB RAM, 120GB SSD storage, HDMI & IP output up to 1080p. Includes access to cloud-based InfoVue signage application for full design, management, and scheduling of one o	$4,950.00	1	20.00%	$4,950.00	$3,960.00	$3,960.00
ProVue HD - Digital	Yes	Professional IP Decoder, 1 RU, Dual GigE Interfaces, Integrated MPEG-2 and H.264 NTSC (PAL) Output Channel, HD/SD on HD-SDI.	$3,950.00	3	20.00%	$3,950.00	$3,160.00	$9,480.00

ProVue Graphics - Basic	Yes	Shipping 2Q 2013. Optional Basic Graphics for ProVue 1RU or HyperCaster ProVue Inside - Adjustable On-Screen Text Crawl and Logo Insertion	$1,000.00	3	20.00%	$1,000.00	$800.00	$2,400.00
Episode Pro 6 - Mac	No	Episode is a multi-format encoding application for Mac that encodes video to all major Web, DVD authoring, mobile, portable device formats, and pro formats (MXF, GXF, IMX, MPEG-2/-4 TS). If using for HyperCaster, then Episode Pro Audio is Required /TPCL	$1,195.00	1	10.00%	$1,195.00	$1,075.50	$1,075.50
Connect - Start Up	No	Waived with purchase--Hosted Video Contribution Service - One-time Account Set-up/TPCL	$1,000.00	1	100.00%	$1,000.00	$0.00	$0.00
Connect - Organization Account	No	First year FREE with purchase - Browser Based Content Uploading with MetaData, Transcoding to SD MPEG-2 PS (50GB per month included), One Broadcast Channel with Advanced Channel Scheduling, 10 User Licenses (seats), Annual License/TPCL	$3,000.00	1	100.00%	$3,000.00	$0.00	$0.00
Black Magic - MINI-SDI-TO-ANALOG	No	Black Magic SDI to Analog Mini-Converter/TPCL	$295.00	4	10.00%	$295.00	$265.50	$1,062.00
NAS-N12000Pro-12x	No	Thecus N12000 Pro NAS with 6 x 4TB Seagate Constellation ES3 Drives; Effective storage ~12TB (expandable to 24TB)	$7,950.00	1	10.00%	$7,950.00	$7,155.00	$7,155.00
CUSTOM-3P EQUIP	No	Kramer VM-50AN 1:5 Balanced & Unbalanced Stereo Audio Distribution Amplifier	$0.00	3	10.00%	$265.00	$238.50	$715.50
CUSTOM-3P EQUIP	No	Kramer VM-50V 1x5 Composite Video Distribution Amplifier	$0.00	3	10.00%	$280.00	$252.00	$756.00
CUSTOM-3P EQUIP	No	Kramer RK-1 Rack Adapter	$0.00	3	10.00%	$95.00	$85.50	$256.50
APC-2200	No	APC SMT2200RM2U: 2RU, 2220 VA, Power UPS, *REQUIRES 20 AMP CIRCUIT*	$1,585.00	1	10.00%	$1,585.00	$1,426.50	$1,426.50
CUSTOM-EQUIP	No	HP switch 2948	$0.00	1	10.00%	$3,000.00	$2,700.00	$2,700.00
MISC-CBL	No	Misc. Cables / Connectors / Parts	$0.00	1		$500.00	$500.00	$500.00
Installation and Training Services	No	Daily Installation Rate/TPCL	$1,500.00	3	15.00%	$1,500.00	$1,275.00	$3,825.00
TELVUE-CARE	No	5 Years -- TelVue Care warranties hardware and provides on-going access to on-line software upgrades, unlimited web training and basic application feature enhancements. 24/7/365 tech support.	$0.00	0	20.00%	$22,320.00	$17,856.00	$0.00
Trade-In Credit	No	Credit For Trade-in LTX Equipment plus	$0.00	1		($2,750.00)	($2,750.00)	($2,750.00)

Company Name TelVue

TeleCast Ship	No	Shipping Charge - E100W Series/TPCL	$50.00	1		$50.00	$50.00	$50.00
HyperCaster B1000-SHIP	No	Shipping Charge - B1000 Series /TPCL	$75.00	1		$75.00	$75.00	$75.00
MISC-SHIP	No	Shipping Charge - Miscellaneous/TPCL	$0.00	1		$700.00	$700.00	$700.00
ProVue Ship	No	ProVue Shipping /TPCL	$50.00	3		$50.00	$50.00	$150.00
ProVue Graphics - Basic	Yes	RCN--Optional Basic Graphics for ProVue 1RU or HyperCaster ProVue Inside - Adjustable On-Screen Text Crawl and Logo Insertion	$1,000.00	0	20.00%	$1,000.00	$800.00	$0.00
ProVue HD - Digital	Yes	RCN--Professional IP Decoder, 1 RU, Dual GigE Interfaces, Integrated MPEG-2 and H.264 NTSC (PAL) Output Channel, HD/SD on HD-SDI.	$3,950.00	0	20.00%	$3,950.00	$3,160.00	$0.00
CUSTOM-3P EQUIP	No	Elemental LO24 real time transcoder	$0.00	1	10.00%	$19,493.00	$17,543.70	$17,543.70
Trade-In Credit	No	Credit For Trade-in TeleCast encoders and LTX equipment	$0.00	1		($8,000.00)	($8,000.00)	($8,000.00)

	Quote Sub-total	$69,880.45
Additional Services	Fee	$0.00
	Services Extras	$0.00
	Sub-Total	$0.00
	Quote Total	$69,880.45

Terms are net 30. A finance / late fee of 1% per month will be added to an unpaid balance each month thereafter. Purchases of equipment outside of the United States require advance payment or letter of credit.

By Signing Below Customer Accepts Quote as Purchase Order on the above terms:

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Fax to TelVue at: 856-866-7411, or Email to: orders@telvue.com)

Noted Service Options

TelVue Care is quoted as 15% of the value at sale of TelVue Care eligible equipment for year 2 coverage, declining (straight line) to 7.5% in the 5th year coverage if prepaid.

$0.00

$0.00

Company Name TelVue

Access A/V Quote

The following page contains a detailed quote from **Access A/V** pertaining to entire Audio/Video (A/V) cable access TV broadcast system infrastructure build out for the new *Dedham Town Hall at the Ames Schoolhouse*.

Dedham Town Hall
Ames School Building
Donna Greer

ACCESS A/V
AUDIO • VIDEO • LIGHTING • MOBILE VANS
SALES & INSTALLATIONS
8 Integra Drive • Concord, NH 03301
p- 603 224 2300 • f- 603 224 2308
www.accessavnh.com

Date: 11/5/15 **2 Camera Robotic Systems ESTIMATE**

Qty.	Mfgr / Model #	Description	List Price	Price	Ext. Price
8	Panasonic AW HE130	3-chip HD PTZ professional camera	$ 71,200.00	$ 8,298.00	$ 66,384.00
8	Vaddio 535-2000-223	camera mounts	$ 2,000.00	$ 198.00	$ 1,584.00
2	Gigabit POE switch	camera power and control	$ 800.00	$ 300.00	$ 600.00
2	Panasonic AW-RP120	controller	$ 9,990.00	$ 3,980.00	$ 7,960.00
2	Datavideo SE2200*	6 input switcher, DVID + VGA inputs, multiview	$ 8,600.00	$ 3,893.00	$ 7,786.00
2	Laptop with software for CG	lower thirds and graphics	$ 1,576.00	$ 598.00	$ 1,196.00
2	Decimator 2	HDSDI to composite + HDMI converter	$ 998.00	$ 344.00	$ 688.00
2	NEC EA273WMI	27" Multiview Monitor / Interface	$ 998.00	$ 415.00	$ 830.00
2	Magnavox MDR535H/F7/rack	DVD,/HDD Recorder with rack mount	$ 1,098.00	$ 399.00	$ 798.00
2	Atomos Ronin kit	HD recorder. Rack mount 4 500GB hard drives	$ 3,680.00	$ 1,380.00	$ 2,760.00
2	Hitachi 24" LED	24" LED: return feed, program + DVD monitor	$ 798.00	$ 199.00	$ 398.00
1	Sacom Wireless System	22 Wireless Mics/Charging/Antenna/ configuration	$ 34,800.00	$ 29,865.00	$ 29,865.00
2	Williams Sound PPA-457	4 Channel Wireless Assistive Listening System	$ 2,582.00	$ 1,160.00	$ 2,320.00
2	Behringer Ultracurve Pro	Programmable EQ/Feedback Eliminator	$ 798.00	$ 295.00	$ 590.00
3	Shure SCM820-DAN-DB25	9 input auto mic mixer with DSP	$ 7,470.00	$ 1,998.00	$ 5,994.00
2	TOA BG 2120	Amps for ceiling speakers	$ 1,098.00	$ 475.00	$ 950.00
16	Soundtube CM800i	8 per room, 8" ceiling mount speaker	$ 8,220.00	$ 387.00	$ 6,192.00
2	Panasonic PT-RW330	3500 Lumen LED Projector	$ 9,200.00	$ 2,650.00	$ 5,300.00
2	Projector Mount Kit	Clamp/Pipe + Hardware	$ 780.00	$ 298.00	$ 596.00
2	Extron projector controller	projector controller	$ 1,460.00	$ 480.00	$ 960.00
2	Da-Lite projection screen	projector screen (installation by GC)	$ 4,960.00	$ 1,998.00	$ 3,996.00
2	Samsung UN55J620DAFXZA	55" 1080p Smart LED HDTV, install, Mount	$ 2,857.00	$ 1,099.00	$ 2,198.00
6	Mid-Atlantic U2	Shelf	$ 327.00	$ 39.00	$ 234.00
2	Atlona AT-HDVS-TX-WP/AT-HDVS-RX HDMI/VGA cat6 transmitter/receiver		$ 2,274.00	$ 875.00	$ 1,750.00
2	Atlona AT-HD500	Projector to Switcher VGA	$ 724.00	$ 294.00	$ 588.00
2	SurgeX SX1115	power conditioner + surge eliminator	$ 1,138.00	$ 499.00	$ 998.00
2	Middle-Atlantic MDV-DSK	desk with Overbridge	$ 1,128.00	$ 448.00	$ 896.00
2	Middle Atlantic MDV-R12	side rack	$ 648.00	$ 249.00	$ 498.00
2	Cables + Misc Supplies	Cables + Misc Supplies ESTIMATE	$ 4,400.00	$ 1,680.00	$ 3,360.00
1	custom design	project design	$ 1,980.00	$ 1,980.00	$ 1,980.00
2	Installation, evening tech support, loaner program*, Training estimate		$ 13,780.00	$ 5,890.00	$ 11,780.00
2	System Flow diagram and operator quick start guide		$ 1,360.00	$ 680.00	$ 1,360.00
1	1 Year parts and labor warranty		$ 860.00		included
	OPTIONS	***not included***			
	QViduim HD Video over IP $8,975.00				
		PRELIMINARY QUOTE			

Quotes good for 30 days
shipping not included

List price: $ 204,582.00 **COST: $ 173,389.00**

Submitted by: Kevin Long

The information provided herewith is the exclusive property of Access A/V.
Distribution of this material without express written permission is strictly prohibited.
*Loaner program provided for all equipment on this quote. Normal manufacturer turn around on repairs is 30+ days

Install Notes
Control Room Location TBD

Scope of Work
Provide two turnkey PTZ camera systems
Provide and Build AV Furniture
Install Wall Plate to HDMI and VGA for Projector Feed
Install Projectors and send signals to Switchers
Add wireless Mic(s) and Hearing Imapred Assistiev Listening system
Provide and Install Ceiling Speakers and Amplification
Provide and Install all equipment listed above
provide Day/Evening tech support
*Provide Loaner program with 48 hour turnaround on items that require service

Integrated Solutions Group Quotes

The following pages contains detailed quotes from **Integrated Solutions Group** pertaining to a new state-of-the-art in-studio lighting system for studio productions and a new in-studio theatrical curtain replacement. Furthermore, speculative quotes have also been provided here for new advanced cable access TV Broadcast Lighting options and Press Room Auditorium options as part of the Audio/Video (A/V) build out for the new *Dedham Town Hall at the Ames School House*.

Date: 10.09.15

Prepared For: Donna Grear
Dedham Visionary Access Corp.
502 Sprague Street, Dedham, MA 02026
781.326.2107 dedhamtv@gmail.com
Quote #: Q10915JL-Dedhamprofessional

Energy Lighting Professional

Qty	Model	Description	Price	Ext
Lighting equipment		**Energy Efficient Lighting Package**		**$55,132.00**
9	PRM-400TU	Lowel prime LED 400 - Tungsten - w/ C-Clamp, Gel Frame & DMX Control		$ -
9	PRM-433	Lowel Prime LED 400 30-Degree Honeycomb		$ -
4	PRM-800TU	Lowel prime LED 800 - Tungsten - w/ C-Clamp, Gel Frame & DMX Control		$ -
6	OvationF95WW	Chauvet Ovation 95W 3200K LED Fresnel with DMX Control & Pass-Thru Power		$ -
6	OF625Barndoor	Chauvet 6.25" 4-Way Barndoor for Ovation 95W LED Fresnel		$ -
1	OvationE190WW26	Chauvet Ovation LED Ellipsoidal with 26-Degree Lens tube		$ -
1	CT2160	City Theatrical "B" Size Gobo Holder		$ -
1	CT2250	City Theatrical Donut for Ellipsoidal		$ -
1	Printscenic - Plastic Original	Apollo Printscenic Plastic Gobo - Original - Size B - B&W Patriots Elvis Logo		$ -
1	Printscenic - Plastic Duplicate	Apollo Printscenic Plastic Gobo - Duplicate - Size B - Patriots Elvis Logo		$ -
7	ColoradoBat144Tour	Chauvet Colorado Batten 144 Tour RGBWA LED DMX Fixture		$ -
6	ColorDashParQuad7	Chauvet Colordash Par Quad-7 RGBA LED DMX Fixture		$ -
11	MB429742	Matthews Black Lightweight 2'-4' Extension Hanger with C-Clamp & Stirrup		$ -
1	Rosco 3028S	Rosco Sheet #3028 1/4 Tough White Diffusion		$ -
34	Safety Cable	Black Safety Cable - 30"		$ -
	Dimming Components			
1	ETCSF2496	ETC Smartfade 24/96 DMX Control Console		$ -
1	ETCSFDC2	ETC Smartfade 24/96 Dust Cover		$ -
1	4GB Card	Vectra 4GB Data Memory Card for Smartfade		$ -
21	CCLAMP	C-Clamp		$ -
2	DMX5-50	5-Pin DMX Cable - 50'		$ -
2	DMX5-25	5-Pin DMX Cable - 25'		$ -
8	DMX5-20	5-Pin DMX Cable - 20'		$ -
10	DMX5-15	5-Pin DMX Cable - 15'		$ -

Integrated Solutions Group
858 Providence Highway, Norwood, MA 02062
Phone 781-769-7810 Fax 781-769-5750

14	DMX5-10	5-Pin DMX Cable - 10'		$ -
2	DMX-Term	5-Pin DMX Terminator		$ -
1	Cable Tie	100 Pack 11.5" Black Cable Tie		$ -
1	70575(5-Pin)	Enttec D-Split 5-Pin DMX Splitter, 4-Way		$ -
10	PC14-10	10' 14/3 Powercon A/B Extension Cable		$ -
4	PC14-15	15' 14/3 Powercon A/B Extension Cable		$ -
8	4160825	8' 14/3 Edison Extension Cable		$ -
1	Installation	**Installation is included in this package but will be bill separately by Jonathan Lipsy (JML Concepts in Lighting)**		$ 3,600.00
1	Shipping Charge	Freight charge can only be estimated at this time.	$ 1,200.00	$ 1,200.00
		Package Total		**$59,932.00**
		Applicable taxes are not included		
		Terms: 50% Down, 50% Net 30		
		Quotation valid: 30 days.		

Jonathan Lipsy
Manager; Lighting Division

INTEGRATED SOLUTIONS GROUP
Broadcast | Lighting | Design
A Division of The Camera Company

Date: 10.09.15

Prepared For: Donna Grear
Dedham Visionary Access Corp.
502 Sprague Street, Dedham, MA 02026
781.326.2107 dedhamtv@gmail.com
Quote #: Q10915JL-Dedhamprofessional

Infrastructure Quote

Qty	Model	Description	Price	Ext
		Studio Infrastructure Quote		
	Pipe Grid			
1	27'x19' Pipe Grid	Supply and install a pipe grid 34'-0" x 26'-0" on 4' centers of 1 ½" Sch 40 pipe. To be hung from existing structure with threaded rod and rated hardware.	$12,375.00	$ 12,375.00
		Includes: 20' sections of pipe, internal splices, overlap brackets, wall brackets and all necessary hanging brackets & components		
	Curtain Track			
1	360-Degree Curtain Track	Remove, modify and reinstall existing ADC model 142 aluminum I-beam track to form a 360 degree loop. Utilize existing track and add additional splices and hangers as required. Supply and install 134 new carriers on 9" centers for the curtain package listed below. Track to be attached to pipe grid with chain and rated shackles.	$3,780.00	$ 3,780.00
	Curtains			
1	Black Curtain	Supply (1) drapery panel sewn with "Crescent" inherently flame retardant polyester velour color **black**, sewn flat (0 % fullness) with grommets on 9" centers, 2" side hems and a 4" bottom hem with an internal chain pocket with #8 zinc plated jack chain. One (1) panel 11'-8"H x 49'-0"W, supplied with s-hooks.	$1,930.00	$ 1,930.00
1	Cornflower Blue Curtain	Supply (1) drapery panel sewn with "Crescent" inherently flame retardant polyester velour color **blue**, sewn flat (0 % fullness) with grommets on 9" centers, 2" side hems and a 4" bottom hem with an internal chain pocket with #8 zinc plated jack chain. One (1) panel 11'-8"H x 49'-0"W, supplied with s-hooks.	$1,930.00	$ 1,930.00

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	Installation			
1	Installation	Package includes installation of Pipe Grid, Curtain Track and Curtains.		
1	Handling & Delivery	Handling & Delivery to job site	$ 500.00	$ 500.00
		Package Total		**$ 20,515.00**
		Applicable taxes are not included		
		Terms: 50% Down, 50% Net 30		
		Quotation valid: 30 days.		

Jonathan Lipsy
Manager; Lighting Division

Integrated Solutions Group
858 Providence Highway, Norwood, MA 02062
Phone 781-769-7810 Fax 781-769-5750

Date: 03.04.15

Infrastructure

Qty	Model	Description	Price	Ext
		Studio Infrastructure Quote		
	Pipe Grid			
1	25'x16' Pipe Grid	1.5" Schedule 40 steel pipe grid, painted black	$10,750.00	$ 10,750.00
		Includes: 20' sections of pipe, internal splices, overlap brackets, wall brackets and all necessary hanging brackets & components		
		**** To be hung from 3/8" threaded rod with j-hangers attached to existing brick coffered ceiling with the Hilti HIT-HY70 Adhesive Anchoring System for full and proper stability.**		
	Curtain Track			
1	360-Degree Curtain Track	360-Degree Curtain Track made up of 82' of 1400 Aluminum I-Beam track to circle entire studio. Includes 159 Curtain Carriers for three (3) curtains	$6,100.00	$ 6,100.00
		Includes: Model #142 Rig-I-Flex track for walk-along operation - complete with all necessary accessories and hanging hardware (track mounts directly to pipe grid)		
	Curtains			
1	Black Velour Curtain	Black Crescent Velour IFR Curtain, 8'-6"H x 40'W, Sewn Flat, Grommets 9" O.C.	$1,280.00	$ 1,280.00
1	Pewter Velour Curtain	Pewter Crescent Velour IFR Curtain, 8'-6"H x 40'W, Sewn Flat, Grommets 9" O.C.	$1,280.00	$ 1,280.00
1	Chroma-Key Green	Poly Pro IFR Chroma-Key Green Curtain, 8'-6"H x 36'W, Sewn Flat, Grommets 9" O.C.	$990.00	$ 990.00
6	Chroma Floor	4'x8'x3/8" Chroma-Key Green Flooring	$150.00	$ 900.00
	Installation			
1	Installation	Package includes installation of Pipe Grid, Curtain Track and Curtains.		
1	Handling & Delivery	Handling & Delivery to job site	$ 500.00	$ 500.00
		Package Total		**$ 21,800.00**

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Number of fixtures to be replaced:	Fixture Quantity	Bulb Data: Cost (ea.)	Bulb Data: Life (hours)
2000W Tungsten Fresnel	0	$ 28	500
1000W Tungsten Fresnel/Par	4	$ 17	400
650W Tungsten Fresnel	14	$ 15	400
1500W Tungsten Softlite/Scoop	14	$ 10	500
1000W Tungsten Softlite/Scoop	0	$ 10	500
1000W Tungsten Cyc Light	8	$ 10	500
750W Tungsten Ellipsoidal/Parnel	1	$ 18	400
Tungsten Fixture Total	41		

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Kilowatt Per Hour cost ($0.0)	0.15
Maintenance hourly rate ($/hr)	10
Average usage per week (hours)	35
Annual Hourly Usage	1820
Annual Baseline kwh Usage	77,987.0
Annual Energy kwh Usage	9,442.16
Annual kwh Savings	68,544.8

	Watt Calculation			Power Analysis			Bulb Analysis		
Light Type	Watts per Light	Total Watts	Total KW	Cost/ KWH	Cost per Week	Cost per Year	Unit Bulbs	Total Bulbs	Total $ Cost
2K Fresnel	2,000	0	0.00	$ -	$ -	$ -	4	0	$ -
1K Fresnel	1,000	4,000	4.00	$ 0.60	$ 21.00	$ 1,092	5	18	$ 309
650W Fresne	650	9,100	9.10	$ 1.37	$ 47.78	$ 2,484	5	64	$ 956
1500W Softli	1,500	21,000	21.00	$ 3.15	$ 110.25	$ 5,733	4	51	$ 510
1K Softlite	1,000	0	0.00	$ -	$ -	$ -	4	0	$ -
1K Cyc	1,000	8,000	8.00	$ 1.20	$ 42.00	$ 2,184	4	29	$ 291
750W Ellips	750	750	0.75	$ 0.11	$ 3.94	$ 205	5	5	$ 82
Total	7,900	42,850	42.85	$ 6.43	$ 224.96	$ 11,698	28	167	$ 2,148

Number of Replacement Fixtures	Quantity	Price
Lowel Prime 135W LED Panel	8	$ 14,400
Videssence 110W Fluorescent Fixture	6	$ 8,400
Chauvet 190W LED Ellipsoidal	1	$ 1,500
Chauvet 171W LED RGBAW Fixture	8	$ 12,000
Chauvet 95W LED Fresnel	8	$ 8,000
Chauvet 113W LED RGBA Fixture	10	$ 10,000
Totals	41	$ 54,300

Light Type	Watt Calculation: Watts per Light	Total Watts	Total KW	Power Analysis: Cost/ KWH	Cost/ Week	Cost/ Year
135W LED	135	1080	1.08	$ 0.16	$ 5.67	$ 295
110W Fluo	110	660	0.66	$ 0.10	$ 3.47	$ 180
190W LED	190	190	0.19	$ 0.03	$ 1.00	$ 52
171W LED	171	1368	1.368	$ 0.21	$ 7.18	$ 373
95W LED	95	760	0.76	$ 0.11	$ 3.99	$ 207
113W LED	113	1130	1.13	$ 0.17	$ 5.93	$ 308
Total	814	5,188	5.188	$ 0.78	$ 27.24	$ 1,416

Annual Cost Analysis	Base Tungsten	Energy	Yearly Savings
Cost to Power Lights	$ 11,698	$ 1,416	$ 10,282
Cost to Power A/C (estimate)			$ -
Total Power Costs	$ 11,698	$ 1,416	$ 10,282
Labor	$ 416	$ -	$ 416
Bulbs	$ 2,148	$ -	$ 2,148
Total Costs	$ 14,262	$ 1,416	$ 12,846
Payback Period	4.2	Years	
		Estimated Incentive	$ -

Electricity Cost Formula: Wattage x Hours Used ÷ 1000 x Price per kwh = Cost of Electricity

Labor: Based on 15 minutes to replace a bulb that is installed on set

A/C: It takes on average 0.5 times wattage to cool the studio (estimate)