

# UNIVERSITY OF LOUISIANA AT LAFAYETTE

## STEP Committee

### Technology Fee Application

BURKE THEATER LIGHTING SYSTEMS UPGRADE / THEATRE SUSTAINABILITY INITIATIVE
Title

MARTY AIKENS
Name of Submitter
<i>(Faculty or Staff Only)</i>

ULL - THEATRE AND DANCE
Organization

Title: Burke Theater Lighting Systems Upgrade /  
Theater Sustainability Initiative

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Date: 07/11/2023

Name (Contact Person): Marty Aikens

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Address: 231 Hebrard Ave - Burke Hawthorne Hall Room 130

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Phone Number: 404.734.8986 Email: marty.aikens@louisiana.edu

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Department/College/Org: Theatre and Dance

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**ABSTRACT (250 words or less):**

The proposal, submitted here, is to begin the conversion and upgrade of existing conventional, incandescent lighting fixtures in Burke-Hawthorne Hall / Burke Theater to fixtures with LED technologies that are concurrent with industry standards and practice in the field of professional Theatre.

By doing so, the conversion would seek to accomplish three goals:

1. A move to bring the theater's equipment available for production and training into an industry standard position.
2. Create a projected impact on undergraduate students completing Student Research Experiences (SREs), a major initiative at the University level and an essential pillar of the ULL Strategic Plan.
3. Promote the use of sustainable resources and continue campus initiatives to lower the University's carbon footprint.

- 3 . Give a description of your proposal in 12 pt. font, single spaced, addressing the following points:
- a. Purpose of grant and impact to student body as a whole

Technology has always been an integral part of theatrical production and its transformation as a craft. Production values continue to increase as the performance of staged theatrical shows incorporate high-tech methodologies, practices, equipment, and techniques. These include, but are not limited to, projections and projection mapping, full show automation, virtual and augmented reality, and various other technologies that are just emerging.

In order for our graduates to stay well-trained, and competitive in the job market, we must continue to invest in upgrading both production equipment and training methodologies. LED technology and the use of intelligent lighting systems has become the new standard in stage lighting, both in its use as a production element to enhance the look of presented works, but also in the knowledge base and training of Design / Tech focused students. The engineering, color-mixing, programming, and artistic application of LED / intelligent lighting is an area of study, training, and research that is essential to the knowledge base of a designer or stage technician entering the current professional theater market. The upgraded equipment would be utilized by no less than 12+ courses across the Theatre and Dance curriculum, both in stagecraft and performance.

As we face the climate crisis, Theatre is only one of many artistic fields that face the pressures and needs of reducing contribution to our carbon footprint and the use of non-renewable resources. the conversion to LED technologies is an obvious resource saving measure...not to mention would represent a significant cost savings in electricity to the University.

Not only would the upgrade allow for our studies to connect students with these skills and resources, but would allow us to connect our audiences with the high-end production values that are becoming the hallmark of live stage production. This equipment would serve not only as

an educational tool for the entirety of our curricular offerings, but also as a major advance in our production quality and outward presentation to the community.

b. Projected lifetime of enhancement

The expected lifespan of this type of upgrade would be 12-18 years.

c. Person(s) responsible for

i. Implementation

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology
- THEA 251 - Stagecraft (enrolled students)
- THEA 351 - Lighting for the Stage (enrolled students)
- THEA 333 - Theatre Workshop (enrolled students)

ii. Installation

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology
- THEA 251 - Stagecraft (enrolled students)
- THEA 351 - Lighting for the Stage (enrolled students)
- THEA 333 - Theatre Workshop (enrolled students)

iii. Maintenance

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology
- THEA 251 - Stagecraft (enrolled students)
- THEA 351 - Lighting for the Stage (enrolled students)
- THEA 333 - Theatre Workshop (enrolled students)

iv. Operation

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology
- THEA 251 - Stagecraft (enrolled students)
- THEA 351 - Lighting for the Stage (enrolled students)
- THEA 333 - Theatre Workshop (enrolled students)
- Students involved with stage productions through the Burke Theater

v. Training (with qualifications)

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology

vi. STEP Plan Alignment

- Michael Hidalgo / Technical Director
- Marty Aikens - Assistant Professor of Design and Technology

## Budget Proposal

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1.	<b>Equipment</b>	\$	(6) Chauvet Rouge R2X Spot @ \$2,650 = \$15,900 (8) Chauvet Rouge R2X Wash @ \$2,000 = \$16,000
2.	<b>Software</b>	\$	N/A * The Burke Theatre is currently equipped with the ETC ION (EOS) lighting console that provides the software / hardware needed to incorporate the upgraded lighting fixtures / equipment. Training on this equipment is a standard component of the Theatre Design / Tech curriculum.
3.	<b>Supplies</b>	\$	N/A
4.	<b>Maintenance</b>	\$	N/A * Maintenance training on this equipment is a standard component of the Theatre Design / Tech curriculum.
5.	<b>Personnel</b>	\$	N/A
6.	<b>Other</b>	\$	N/A
<b>TOTAL:</b>		<b>\$</b>	<b>31,900</b>

5. In addition to the artistic upgrade, the training benefits, and the increase in production values... there is a major reasoning behind the environmental emphasis placed on conversion of traditional incandescent lighting to LED technology. Not only is the theatrical world responding to the high-end technical possibilities, the increase in visual interest, and the "limitless" artistic avenues associated with LED lighting technologies, but also the cost effectiveness of the equipment, hardware, maintenance, and energy savings over time that are a benefit of this conversion.

Here are a couple of published articles that further the conversation.

American Theatre Magazine /06/19/2019 - <https://www.americantheatre.org/2018/06/19/charge-of-the-led-brigade/>

SSRC Blog - November 2017 - <https://www.ssrconline.com/blog/why-the-pros-are-beginning-to-use-led-stage-lighting/>

The Spring 2023 semester will also see a new course introduced into the ULL Theatre and Dance curriculum by Visiting Professor Greg Romero.

The course "Theatre and Sustainability" will cover initiatives across the profession, such as this one, to bring Theatre production practices into a more responsible position.

See the announcement below:

A fun new course for Spring 2023:

Theatre and Sustainability

THEA 341-003 (3 credits)

T/R 3:30 – 4:45

Led by Greg Romero, Visiting Assistant Professor of Theatre

This course will look creatively and practically at the intersections and shared ecosystems within the art of Theatre, the practice of making Theater, the practices of sustainability and environmental stewardship, and the unique environment of Southwest Louisiana. We will read, discuss, hike, imagine, plant, re-use, create, dream, make things, listen, and, just maybe, learn together how to better care for things. This course is happily open to ALL Majors. For more information about the course, please contact [gregory.romero@louisiana.edu](mailto:gregory.romero@louisiana.edu)

Discussion on these types of improvements and initiatives have also begun with the ULL- Office of Sustainability and their cooperation with the Dept of Theatre and Dance.. Please see Greg Romero's correspondence following the initial meeting about the upcoming course:

From: Gregory J Romero <[gregory.romero@louisiana.edu](mailto:gregory.romero@louisiana.edu)>

Sent: Monday, December 12, 2022 3:13 PM

To: Sara K Birk <[sara.birk@louisiana.edu](mailto:sara.birk@louisiana.edu)>; Camille A Bulliard <[camille.bulliard@louisiana.edu](mailto:camille.bulliard@louisiana.edu)>; Marty L Aikens <[marty.aikens@louisiana.edu](mailto:marty.aikens@louisiana.edu)>; Michael E Hidalgo <[michael.hidalgo@louisiana.edu](mailto:michael.hidalgo@louisiana.edu)>; Trent Pcenicni <[trentpdesigns@gmail.com](mailto:trentpdesigns@gmail.com)>; Samantha M Abbott <[samantha.abbott@louisiana.edu](mailto:samantha.abbott@louisiana.edu)>; Carl C Granieri <[carl.granieri@louisiana.edu](mailto:carl.granieri@louisiana.edu)>; Michael P Crotty <[michael.crotty@louisiana.edu](mailto:michael.crotty@louisiana.edu)>; Marie D Broussard <[marie.broussard@louisiana.edu](mailto:marie.broussard@louisiana.edu)>; Kristi D Carr <[kristi.carr@louisiana.edu](mailto:kristi.carr@louisiana.edu)>

Subject: meeting with UL Office of Sustainability was fantastic!

Hi everyone!

Happy Monday to all of you and I'm wishing you all the best and all the rest you need from such a busy and successful Fall semester.

As we look to the spring, I wanted to share with you my super exciting, super encouraging meeting I had with UL's Office of Sustainability on Friday because there is a lot of excitement and opportunity that came from it.

The short version is that they are THRILLED that a "Theatre and Sustainability" class is being offered and are 100% interested in supporting it and participating as much as they can. Additionally, we are all very interested in long-term collaborations between their office and the work we are doing. They are thrilled to be working with artists and creative people.

I would be happy to go into much further detail about all of these things, but these are just some of the things we talked about and projects and activities we dreamed up:

- Class visits from their Office to share information about sustainability and campus efforts/resources in support of sustainability (complete with Powerpoint)
- Campus tours of Sustainability projects and efforts, which include things like the "Good to Geaux" and water conservation projects, and also things like the pollinator gardens (UL is a "Tree America" and a "Bee America" campus); basically, pointing out all the ways UL campus is practicing sustainability and ways we could be doing more.
- A project to transform the greenspace in front of McLaurin into a pollinator space by planting native plants and flowers (and making it look super beautiful as well)
- Visits to our production facilities and shops to look for sustainable measures to improve upon. MICHAEL and MARTY: when I told them that we were already implementing some of the practices from the "A Practical Guide to Greener Theatre" they were thrilled. When I told them that you were already looking into ways to replace our current lighting and electrical systems with lower energy options, they were super excited. They said, "Get me the numbers". They are interested and willing to help us with the grants that you are working on and to help us find resources. WIN WIN WIN.
- Participation in the College Green Captain program: <https://www.broadwaygreen.com/college-green-captains> and/or Broadway Green Alliance Chapters program: <https://www.broadwaygreen.com/chapters-1>
- The commissioning of a new play, centered around a specific ecological issue, perhaps one specific to our campus or cultural area. For example, I have done a similar thing (a commission partnership between an environmental organization and a theater

company) that led to this: <https://www.youthplays.com/play/of-plastic-things-and-butterfly-wings-by-greg-romero-255>. This newly commissioned play - in any of its stages of development - could be presented in partnership b/w PFAR and the Office of Sustainability.

- Partnership to create and document a sustainable-intentioned process - from start to finish - of a theatrical production.
- NOTE: As a related note here, when I told them about my play, *Falling Down the Mountain of Great Storms*, and how it addresses the ecology of Atchafalaya, they got really excited. When I told them there's a moment when a character (who is a Fox) tells the audience to look under their seats, where they have put a packet of seeds, and then leads them outside of the theater to actually plant the seeds in the actual ground, all three of the Sustainability office people said, in unison, "We have the seeds!". And then Gretchen said, "And the place to plant them! We are actually cultivating a pollinator space right outside of Burke Hall". So that's very exciting.
- Collaboration with projects as part of Climate Change Theatre Action: <http://www.climatechangetheatreaction.com/about/> (which, I'm happy to say, our Theater department has done before! 😊)
- Participating in and finding creative partnerships with any of their ongoing programs (such as Earth Week projects, campus beautification, campus re-use projects, etc)

So this is just the beginning of what I think could be an exciting long-term conversation between Theatre and Dance and the Office of Sustainability. In addition to their partnership with the class, I was very excited to learn that they are very interested in even more, and larger scale, projects as well.

I intend to stay in conversation with them and will likely take a campus sustainability tour with them sometime this week or next. Please let me know if you'd like to take the tour with me, or are interested in any more of the conversation I'm having with them.

Finally - big thank yous to Sara Birk for her support of this class! Now we just need more people to sign up for it! 😊 Feel free to distribute the attached flyer!

my best,  
 Greg Romero, MFA (he/him/his)  
 Visiting Assistant Professor of Theatre  
 University of Louisiana - Lafayette

Technical Director, Michael Hidalgo has also begun a spreadsheet containing the cost / benefit analysis of upgrading all of our existing theatrical lighting equipment to LED technology.

Though this grant proposal would only represent a portion of the complete upgrade, it is of significant impact, and a great initiating point to launch the process..

Current Instrumentation	Lamps	Wattage	Number of Inst.	Total Wattage Used					Current	Marty	Michael
ETC Source Four	HPL 750	750	36	27000				Total Wattage	97600	15266	13032
ETC Source Four jr Zoom	HPL 575	575	18	10350				kWh	97.60	15.27	13.03
Strand Fresnelite 6"	BTR 1000	1000	15	15000							
Strand Fresnelite 8"	BVW 2000	2000	6	12000							
ETC PAR/PARnel	HPL 750	750	15	11250							
Altman Sky Cyc 04	FFT 1000	4000	5	20000							
Elation Focus Spot 250	MSD 250/2	500	4	2000							

Marty										
Vendor										
New Instrumentation	Lamps	Wattage	Number of Inst.	Total Wattage Used	Full Compass	B&H	BMI	Barbizon	Musson	
ETC Lustr 3	90 Lumileds LUXEON C and CZ	307	24	7368	\$2,620.00	\$3,200.00	\$2,620.00			
ETC Desire D40	40 Lumileds LUXEON Rebel LED	103	18	1854	\$1,800.00	\$1,973.00	\$1,800.00			
ETC Colorsource CYC	42 Lumileds LUXEON C LEDs	133	8	1064	\$1,836.00	\$1,930.00	\$1,836.00			
Chauvet Rouge R2X spot	1 LEDs (CW)	488	6	2928	\$2,615.00	\$2,615.00	\$2,615.00			
Chauvet Rouge R2X wash	19 LEDs (quad color: RGBW)	342	8	2052	\$1,935.00	\$1,935.00	\$1,935.00			
					\$137,268.00	\$155,054.00	\$137,268.00			

Michael											
ETC Colorsource Spot	60 Lumileds LUXEON Rebel LED	147	54	7938		\$1,536.00	\$1,920.00	\$1,536.00			
ETC Colorsource PAR	40 Lumileds LUXEON Z LED	90	30	2700		\$832.00	\$1,040.00	\$832.00			
ETC Colorsource CYC	42 Lumileds LUXEON C LEDs	133	18	2394		\$1,836.00	\$1,930.00	\$1,836.00			
						\$140,952.00	\$169,620.00	\$140,952.00			
						54	1716	\$92,664.00			

6. N/A

**Instruction Sheet:**

1. Complete the cover page.
2. Complete the abstract page.
3. Give a description of your proposal in 12 pt. font, single spaced, addressing the following points:
  - a. Purpose of grant and impact to student body as a whole
  - b. Projected lifetime of enhancement
  - c. Person(s) responsible for
    - i. Implementation
    - ii. Installation
    - iii. Maintenance
    - iv. Operation
    - v. Training (with qualifications)
    - vi. STEP Plan Alignment
  - d. The narrative of the proposal must include the purpose and justification for each of the items listed in the Budget Proposal.
4. Complete the Budget Proposal form.
5. Include any additional information relevant to your application.
6. Discuss all previous funded STEP projects (if any).

**ONE ELECTRONIC COPY (Microsoft Word or Adobe PDF)**  
**OF PROPOSAL SHOULD BE EMAILED TO**  
**[stepproposal@louisiana.edu](mailto:stepproposal@louisiana.edu)**  
**BY DEADLINE DATE.**

**For additional submission instructions and deadlines,**  
**please visit <http://step.louisiana.edu>**

**NO HARD COPY SUBMISSIONS WILL**  
**BE ACCEPTED!**

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