

## FLORIDA BUILDING COMMISSION

### MEETING OF TAC CHAIRS

#### AUGUST 14, 2018 MEETING SUMMARY REPORT

**TUESDAY, AUGUST 14, 2018**

#### **MEETING SUMMARY AND OVERVIEW**

At the Tuesday, August 14, 2017 meeting the TAC chairs considered and decided on whether the proposed projects met the three criteria for funding: 1.) definition of research and/or technical enrichment, 2.) urgency/immediacy, and needed for the 2020 FBC and/or legislative directive, and 3.) funding available (full or partial); and decided which met the requirements, and recommended them for approval by the Commission for funding based on the recommended priorities. The TAC Chairs' voted to recommend the Commission approve funding the research projects for fiscal year 2018 - 2019 as recommended by the TAC chairs on the basis that the proposed projects evaluated meet the three criteria for funding, and are approved for funding based on the funding levels recommended by the TAC chairs (\$400,000 total), and staff administering and overseeing the research, and negotiating scoping, funding levels, and contracting as appropriate.

#### **Background and Supporting Documents**

The agenda and relevant background and supporting documents are linked to each agenda item. The Agenda URL for the August 14, 2018 TAC Chairs meeting is as follows:

[http://www.floridabuilding.org/fbc/commission/FBC\\_0818/TAC\\_Chairs/TAC\\_Chairperson\\_08-14-18.htm](http://www.floridabuilding.org/fbc/commission/FBC_0818/TAC_Chairs/TAC_Chairperson_08-14-18.htm).

#### **AGENDA ITEM OUTCOMES**

##### **OPENING AND MEETING ATTENDANCE**

The meeting was opened at 1:00 PM once a quorum was established, and the following TAC chairs participated:

Jay Carlson (FBC Chair), Hamid Bahadori (Fire), Steve Bassett (Mechanical), Kevin Flanagan (Electrical), Jeff Gross (Accessibility), Fred Schilling (Plumbing), Jim Schock (Structural), Drew Smith (Energy), Brian Swope (Roofing), and Don Whitehead (Special Occupancy).

*Chairs Not In Attendance:*

Jim Batts (Swimming Pool).

##### **DBPR STAFF PRESENT**

Thomas Campbell, Jim Hammers, Chris Howell, Mo Madani, and Justin Vogel.

## Meeting Facilitation and Reporting

The TAC Chairs meeting was facilitated by Jeff Blair from the FCRC Consensus center at Florida State University. Information at: <http://consensus.fsu.edu/>



CONSENSUS CENTER

## AGENDA REVIEW

The TAC chairs voted unanimously, 10 - 0 in favor, to approve the agenda for the August 14, 2018 meeting as posted/presented. Following are the key agenda items approved for consideration:

- To Provide Definitions for “Research” and “Technical Enrichment”
- To Review Available Funding Sources
- To Review Research Workplan/Timeline
- To Determine Research Projects Meeting Definitions and Submittal Criteria
- To Receive Proponents’ Presentations of Proposed Research Projects That Meet Definitions & Submittal Criteria
- To Evaluate, Prioritize and Recommend List of Research Topics for Consideration by the Commission

The complete Agenda is included as “*Attachment 1*” of this report.

(See *Attachment 1—Agenda*)

## APPROVAL OF AUGUST 7, 2017 MINUTES

The TAC chairs voted unanimously, 10 - 0 in favor, to approve the minutes for the August 7, 2017 meeting as posted/presented.

## DEFINITIONS OF RESEARCH AND TECHNICAL ENRICHMENT

At the August 2013 meeting the TAC Chairs approved definitions to provide clarity and consistency regarding what is meant by “research” and “technical enrichment.” The definitions are used as key criteria regarding funding proposed research projects, Following are the approved definitions:

**Research:** An important and necessary endeavor that aimed at studying specific code related issue(s)/topics for the purpose of providing solutions to a specific problem or future code change(s) directed at improving the implementation and enforcement of the FBC. The issue to be researched must be fully understood (i.e., with clear purpose of doing the research/goals); clearly defined with specific scope of work/approach; and within budget.

**Technical Enrichment:** An important and necessary endeavor that is aimed at evaluating complex related code issue(s)/topics for the purpose of providing educational/clarification experience or alternative solutions directed at improving the implementation and enforcement of the FBC. Method of delivery for these matters is through workshop/TAC meetings with specific participation of expert(s) in subject area of concern.

## **AVAILABLE FUNDING SOURCES**

Mo Madani reported that the Commission has approximately \$400,000 available for funding research projects for fiscal year 2018 - 2019. Mo noted that there is a request of from \$653,914 - \$670,914 in funding (+\$14,000 for project #7, and +\$3,000 for project #13). In addition, Mo noted that of the \$400,000 available for funding, \$53,500 is needed for funding a research project required for development of the 2020 Florida Building Code, leaving available funding of approximately \$346,500. In summary, the total amount of funding required to fully fund the 11 remaining eligible projects is \$653,914 - \$670,914 representing a funding deficit of from \$307,414 - \$324,414.

## **RESEARCH WORKPLAN AND TIMELINES UPDATE**

Mo Madani reviewed the updated timelines and workplan for evaluating and approving proposed research projects. The Workplan is included as “*Attachment 2*” of this report.

*(See Attachment 2—Workplan/Timelines)*

## **TAC CONSIDERATION AND EVALUATION OF PROPOSED RESEARCH PROJECTS**

Jeff Blair explained that the following process would be used for evaluation of proposed research projects:

- Incomplete project proposals (3 projects)—projects with no funding estimate provided and/or no written proposal submitted—will not be considered for evaluation during the TAC Chairs’ meeting.
- Projects proposals (1 project) required for the development of the 2020 FBC will be funded, and will not be included in the prioritization exercise.
- Remaining project proposals (11 projects) in turn, will be tested with a straw poll vote regarding whether they meet the criteria for funding, those that achieve a 75% threshold on the straw poll will then receive a formal vote by the TAC chairs. PIs whose projects don’t achieve a 75% straw poll level of support will be provided up to 3 minutes to address why their research project is consistent with the criteria for funding prior to the TAC Chairs’ formal vote regarding the same.
- PIs with projects that are deemed to meet the criteria for funding will have 15 minutes total to present their proposal.
- Once all research project proposals meeting the criteria are presented by the PIs and public comment received, TAC Chairs will participate in a ranking exercise to determine the relative priority of each proposed project based on the adopted criteria and using the ten-point ranking scale described in the Ranking Matrix. Once ranked the TAC chairs will discuss how much funding to provide for proposals (Full/Partial/None) based on the available funding level.

TAC chairs were then asked to review the three criteria and to decide whether each of the 11 funding eligible proposed research projects met the three criteria for funding: 1.) definition of research and/or technical enrichment; 2.) urgency/immediacy, and needed for the 2020 FBC, and/or legislative directive; and, 3.) funding available (full or partial).

The 11 proposed projects that provided a complete application including a cost estimate, were each considered regarding whether they met the criteria for funding. The TAC Chairs’ considered each of the projects in turn by conducting a straw poll regarding whether the project met the criteria for

funding, and if a 75% or greater ranking threshold was achieved then a formal vote was conducted. In instances where a less than 75% ranking threshold was achieved, the PI for the project was provided three minutes to explain why their project met the criteria, and subsequently a formal vote was conducted.

The following 1 project was recommended to be fully funded and were determined to be required for the development of the 2020 Florida Building Code (\$53,500):

- #4) Quantitative and Economic Analysis of the 7th Edition Florida Building Energy Code: {Energy TAC}; (Bereket Nigusse and Muthusamy Swami, FSEC); [\$53,500]

The following 3 projects were not evaluated on the basis that the submittal (proposal) was incomplete and not eligible for consideration:

- #2.) Florida Energy Code Compliance Field Study; {Energy P2}; (Bryan Holland, NEMA); [No Cost Provided]
- #7.) Hybrid Systems with sealed attics; {Mechanical P3}; (Tim Grabowski); [No Cost Provided]
- #12.) Identify Potential Code Modifications Needed to Enhance Electrical Safety at Existing swimming pools; {Electrical P1}; (Bryan Holland, NEMA); [No Cost Provided]

The TAC chairs voted that the following 9 of the 11 eligible projects met the criteria and should be evaluated for funding (\$346,500):

- Florida Code Energy Impacts of Dehumidifier Configuration; {Energy P1}, {Mechanical P2}; (Charles Withers, FSEC); [\$31,500]
- Proposal to Study Utilization and Cost of Electric Receptacle Control Per Florida Code Requirement; {Energy P3} {Electrical P2}; (Joe Territo/Charles Withers, FSEC); [\$21,000]
- Removing ventilation from attics; {Mechanical P1}; (Steve Bassett, FSEC); [\$110,000]
- Florida Code Residential Photovoltaic (PV) System Installation Inspections; {Roofing P1}, {Structural P4}, {Electrical P5}; (Jeff Sonne, and Donald Metzger, FSEC); [\$65,000 - \$79,000]
- Proposals for Assessing Performance of Vinyl Siding and Soffits following Premature Failures in Hurricane Irma; {Structural P1}; (Dr. David Prevatt, UF); [\$239,823]
- A study of the water resistance performance of the exterior envelope of buildings, particularly relating to the fenestrations, during minimal high wind events (Hurricane Irma);” {Structural P2}; (Dan Lavrich); [Technical Enrichment: No Funding Needed]
- Potential Implications of sea-level rise and changing rainfall In Florida Building Code for communities in Florida using Miami-Dade County as a model; {Structural P3}; (Jayantha Obeysekera, Mike Sukop, and Tiffany Troxler, Sea Level Solutions Center, Florida International University, FIU); [\$141,591]
- Adult Changing Tables; {Accessibility P1}; (Brad Schiffer and Sabrina Kimball); [(\$9,000)]
- Establish Bed Height, Bed Frame and Scoping Recommendations for the Florida Specific Accessibility/Transient Housing Section of Code; {Accessibility P1}; (Diana Worrall); [\$5,000]

Projects that were determined not to meet the criteria (2):

- Cost Benefit Analysis of Requiring Limited Photovoltaic and Electric Vehicle Charging Infrastructure in New Construction; {Electrical P3}; (John Hall, Jeffrey Sonne, Richard Raustad and Donard Metzger, FSEC); [\$22,000]
- Study Showing Residential Electrical Fires in Florida Have Been Reduced With Each Expansion of the AFCI Requirements Contained in the NEC; {Electrical P4}; (Neal Burdick); [\$9,000 - \$12,000]

Following are the projects recommended for funding by the TAC chairs (\$400,000):

TAC CHAIRS RESEARCH PROJECT FUNDING RECOMMENDATIONS FOR FY 2018 - 2019			
	PROJECT	FUNDING	COMMENTS
1	Energy TAC	\$53,500	Needed for 2020 Code
<b>TOTAL</b>		<b>\$53,500</b>	

TAC CHAIRS RESEARCH PROJECT FUNDING RECOMMENDATIONS FOR FY 2018 - 2019			
	PROJECT	FUNDING	COMMENTS
1	Structural P2: Water resistance of envelope	0	Technical Enrichment (Workgroup)
2	Accessibility P1: Bed height	\$5,000	
3	Mechanical P2: Dehumidifier configuration	\$31,000	
3	Structural P3: Sea level rise	\$127,883	
5	Accessibility P1: Adult changing tables	\$9,000	
6	Mechanical P1: Removing attic ventilation	\$53,705	
7	Elec. P2: Cost electrical receptacle controls	0	
8	Structural P1: Vinyl siding and soffit	\$119,912	
9	Roof P1/St. P4/Elec. P5: Residential PV	0	
<b>TOTAL</b>		<b>\$346,500</b>	
<b>GRAND TOTAL</b>		<b>\$400,000</b>	

*(See Attachment 3—Research Proposal Costs/Full List of Proposed Research Projects)*

**TAC Actions:**

**MOTION**—The TAC chairs’ voted, 8-2 in favor, to recommend the Commission approve funding the research projects for fiscal year 2018 - 2019 as recommended by the TAC chairs on the basis that the proposed projects evaluated meet the three criteria for funding: 1.) definition of research and/or technical enrichment, 2.) urgency/immediacy, and needed for the 2020 FBC and/or legislative directive, and 3.) funding available (full or partial), and should be approved for funding based on the funding levels recommended by the TAC chairs (\$400,000), and staff administering and overseeing the research, and negotiating contracting, funding levels, and scoping as appropriate.

**COMMITTEE OF TAC CHAIRS RECOMMENDATIONS FOR COMMISSION ACTION**

*MOTION*—The TAC chairs’ voted, 8-2 in favor, to recommend the Commission approve funding the research projects for fiscal year 2018 - 2019 as recommended by the TAC chairs on the basis that the proposed projects evaluated meet the three criteria for funding: 1.) definition of research and/or technical enrichment, 2.) urgency/immediacy, and needed for the 2020 FBC and/or legislative directive, and 3.) funding available (full or partial), and should be approved for funding based on the funding levels recommended by the TAC chairs (\$400,000), and staff administering and overseeing the research, and negotiating contracting, funding levels, and scoping as appropriate.

<b>TAC CHAIRS RESEARCH PROJECT FUNDING RECOMMENDATIONS FOR FY 2018 - 2019</b>			
	<b>PROJECT</b>	<b>FUNDING</b>	<b>COMMENTS</b>
<b>1</b>	Energy TAC	\$53,500	Needed for 2020 Code
<b>TOTAL</b>		<b>\$53,500</b>	

<b>TAC CHAIRS RESEARCH PROJECT FUNDING RECOMMENDATIONS FOR FY 2018 - 2019</b>			
	<b>PROJECT</b>	<b>FUNDING</b>	<b>COMMENTS</b>
<b>1</b>	Structural P2: Water resistance of envelope	0	Technical Enrichment (Workgroup)
<b>2</b>	Accessibility P1: Bed height	\$5,000	
<b>3</b>	Mechanical P2: Dehumidifier configuration	\$31,000	
<b>3</b>	Structural P3: Sea level rise	\$127,883	
<b>5</b>	Accessibility P1: Adult changing tables	\$9,000	
<b>6</b>	Mechanical P1: Removing attic ventilation	\$53,705	
<b>8</b>	Structural P1: Vinyl siding and soffit	\$119,912	
<b>TOTAL</b>		<b>\$346,500</b>	
<b>GRAND TOTAL</b>		<b>\$400,000</b>	

**ADJOURN**

Commissioner Carlson, Commission Chair, thanked TAC chairs and the public for their attendance and participation, and adjourned the meeting at 5:19 PM on Tuesday August 14, 2018.

**ATTACHMENT 1**  
**AUGUST 4, 2018 MEETING AGENDA**

**MEETING OBJECTIVES**

- Approve Agenda
- Approve Minutes August 7, 2017
- To Provide Definitions for “Research” and “Technical Enrichment”
- To Review Available Funding Sources
- To Review Research Workplan/Timeline
- To Determine Research Projects Meeting Definitions and Submittal Criteria
- To Receive Proponents’ Presentations of Proposed Research Projects That Meet Definitions & Submittal Criteria
- To Evaluate, Prioritize and Recommend List of Research Topics for Consideration by the Commission

<b>2:00 PM</b>	<b>1.)</b>	<b>Welcome and Introductions</b>
	<b>2.)</b>	<b>Roll Call</b>
	<b>3.)</b>	<b>Review and Approval of the Meeting Agenda</b>
	<b>4.)</b>	<b>Review and Approval of Meeting Minutes August 7, 2017</b>
	<b>5.)</b>	<b>Provide Definitions for “Research” and “Technical Enrichment”</b>
	<b>6.)</b>	<b>Review Available Funding Sources</b>
	<b>7.)</b>	<b>Review Research Workplan/Timeline</b>
	<b>8.)</b>	<b>Evaluate List of Proposed Research Projects to Determine Those Meeting the Definition of “Research” and/or “Technical Enrichment”, and the Submittal Criteria</b>
	<b>9.)</b>	<p><b>Presentations of Proposed Research Projects Meeting Requirements by Proponents</b></p> <p><b>Energy Technical Advisory Committee</b></p> <p>Priority 1: Florida Code Energy Impacts of Dehumidifier Configuration – Charles Withers (FSEC/\$31,500)</p> <p>Priority 2: Florida Energy Code Compliance Field Study – Bryan Holland, NEMA</p> <p>Priority 3: Proposal to Study Utilization and Cost of Electric Receptacle Control Per Florida Code Requirement – Joe Territo/Charles Withers (FSEC/\$21,000)</p> <p><b>Quantitative and Economic Analysis of the 7th Edition Florida Building Energy Code - Bereket Nigusse and Muthusamy Swami (FSEC/\$53,500)</b></p> <p style="text-align: right;">Note: <b>This project is a continuation to the last FY project and</b></p>

critically needed for the code development of the 7<sup>th</sup> (Edition) update to the FBC

**Mechanical Technical Advisory Committee**

- Priority 1: Removing ventilation from attics – Steve Bassett
- Priority 2: Florida Code Energy Impacts of Dehumidifier Configuration – Charles Withers (FSEC/\$31,500)
- Priority 3: Hybrid Systems with sealed attics – Tim Grabowski

**Roofing Technical Advisory Committee**

- Priority 1: Florida Code Residential Photovoltaic (PV) System Installation Inspections – Jeff Sonne, and Donald Metzger (FSEC/\$65,000 - \$79,000)

**Building Structural Technical Advisory Committee**

- Priority 1: Proposals for Assessing Performance of Vinyl Siding and Soffits following Premature Failures in Hurricane Irma, Dr. David Prevatt (UF/\$239,823)
- Priority 2: A study of the water resistance performance of the exterior envelope of buildings, particularly relating to the fenestrations, during minimal high wind events (Hurricane Irma).” Dan Lavrich (**Technical Enrichment**)
- Priority 3: Potential Implications of sea-level rise and changing rainfall In Florida Building Code for communities in Florida using Miami-Dade County as a model  
Jayantha Obeysekera, Mike Sukop, and Tiffany Troxler, Sea Level Solutions Center, Florida International University (FIU/\$141,591)
- Priority 4: Florida Code Residential Photovoltaic (PV) System Installation Inspections – Jeff Sonne, and Donald Metzger (FSEC/\$64,500 - \$78,500)
- Priority 5: Cost Benefit Analysis of Requiring Limited Photovoltaic and Electric Vehicle Charging Infrastructure in New Construction – John Hall/FSEC (Jeffrey Sonne, Richard Raustad and Donard Metzger) (FSEC/\$22,000)

**Electrical Technical Advisory Committee**

- Priority 1: Identify Potential Code Modifications Needed to Enhance Electrical Safety at Existing swimming pools – Bryan Holland, NEMA
- Priority 2: Proposal to Study Utilization and Cost of Electric Receptacle Control Per Florida Code Requirement – Joe Territo/Charles Withers (FSEC/\$21,000)
- Priority 3: Cost Benefit Analysis of Requiring Limited Photovoltaic and Electric Vehicle Charging Infrastructure in New Construction – John Hall/FSEC (Jeffrey Sonne, Richard Raustad and Donard Metzger)



		(FSEC/\$22,000)  Priority 4: Study Showing Residential Electrical Fires in Florida Have Been Reduced With Each Expansion of the AFCI Requirements Contained in the NEC. – Neal Burdick (\$9,000 - \$12,000)  Priority 5: Florida Code Residential Photovoltaic (PV) System Installation Inspections – Jeff Sonne, and Donald Metzger (FSEC/\$64,500 - \$78,500)  <b>Accessibility Technical Advisory Committee</b>  Priority 1: <ul style="list-style-type: none"> <li>- Adult Changing Tables – Brad Schiffer and Sabrina Kimball (\$9,000)</li> <li>- Establish Bed Height, Bed Frame and Scoping Recommendations for the Florida Specific Accessibility/Transient Housing Section of Code – Diana Worrall (\$5,000)</li> </ul>
	<b>10.)</b>	<b>Evaluate, Prioritize and Recommend List of Research Topics for Consideration by the Commission</b>
	<b>11.)</b>	<b>Comments from TAC Chairs</b>
	<b>12.)</b>	<b>Public Comment</b>
	<b>13.)</b>	<b>Adjournment</b>

**ATTACHMENT 2**  
**RESEARCH WORKPLAN AND TIMELINE**

<b>RESEARCH WORKPLAN</b>	
<b>TIMELINE</b>	<b>MILESTONE</b>
July 2018	Convene TACs to solicit research topics
July – August 2018	Compile outcomes of TACs meetings/various research topics by TAC.
July – August 2018	Make available list of research topics/Scope of Work for review at the Chairs meeting.
August 14, 2018	Chair meeting to consider and recommend list of research topics for consideration by the Commission.
August 15, 2018	Commission decision regarding funding research projects.
August/Sept. 2018	Solicit qualified entity to do the research.
October 2018	Draft contract for research and implementation.
November 2018	Start contract (contract time frame 1- year).  Funding is contingent upon budget appropriation and must be spent within the Fiscal Year.
June 15, 2019	Complete research or partial research.

**ATTACHMENT 3**  
**RESEARCH PROPOSALS**

1.) Florida Code Energy Impacts of Dehumidifier Configuration; {Energy P1}; (Charles Withers, FSEC); [\$31,500]
2.) Florida Energy Code Compliance Field Study; {Energy P2}; (Bryan Holland, NEMA); [No Cost Provided]
3.) Proposal to Study Utilization and Cost of Electric Receptacle Control Per Florida Code Requirement; {Energy P3} {Electrical P2}; (Joe Territo/Charles Withers, FSEC); [\$21,000]
4.) Quantitative and Economic Analysis of the 7th Edition Florida Building Energy Code: {Energy TAC*}; (Bereket Nigusse and Muthusamy Swami, FSEC); [\$53,500]*
5.) Removing ventilation from attics; {Mechanical P1}; (Steve Bassett, FSEC); [\$110,000]
6.) Florida Code Energy Impacts of Dehumidifier Configuration; {Mechanical P2}; (Charles Withers, FSEC); [\$31,500]
7.) Hybrid Systems with sealed attics; {Mechanical P3}; (Tim Grabowski); [No Cost Provided]
8.) Florida Code Residential Photovoltaic (PV) System Installation Inspections; {Roofing P1}, {Structural P4}, {Electrical P5}; (Jeff Sonne, and Donald Metzger, FSEC); [\$64,500 - \$78,500]
9.) Proposals for Assessing Performance of Vinyl Siding and Soffits following Premature Failures in Hurricane Irma; {Structural P1}; (Dr. David Prevatt, UF); [\$213,000]
10.) A study of the water resistance performance of the exterior envelope of buildings, particularly relating to the fenestrations, during minimal high wind events (Hurricane Irma);” {Structural P2}; (Dan Lavrich); [Technical Enrichment: No Funding Needed]*
11.) Potential Implications of sea-level rise and changing rainfall In Florida Building Code for communities in Florida using Miami-Dade County as a model; {Structural P3}; (Jayantha Obeysekera, Mike Sukop, and Tiffany Troxler, Sea Level Solutions Center, Florida International University, FIU); [\$141,591]
12.) Identify Potential Code Modifications Needed to Enhance Electrical Safety at Existing swimming pools; {Electrical P1}; ( Bryan Holland, NEMA); [No Cost Provided]
13.) Cost Benefit Analysis of Requiring Limited Photovoltaic and Electric Vehicle Charging Infrastructure in New Construction; {Electrical P3}; (John Hall, Jeffrey Sonne, Richard Raustad and Donard Metzger, FSEC); [\$22,000]
14.) Study Showing Residential Electrical Fires in Florida Have Been Reduced With Each Expansion of the AFCI Requirements Contained in the NEC; {Electrical P4}; (Neal Burdick); [\$9,000 - \$12,000]
15.) Adult Changing Tables; {Accessibility P1}; (Brad Schiffer and Sabrina Kimball); [(\$9,000)]
16.) Establish Bed Height, Bed Frame and Scoping Recommendations for the Florida Specific Accessibility/Transient Housing Section of Code; {Accessibility P1}; (Diana Worrall); [\$5,000]
<b>* Needed for Development of the 2020 Code</b>
<b>* Technical Enrichment: No Research Funds Required for Project (Workgroup)</b>