FOR ACTION

1. CONSENT AGENDA
   a. Designer Selection
      • Wilson Hall Annex Renovation (Attachment A)
      • Davie Hall Feasibility Survey (Attachment B)
      • Energy Services Utility Improvements in Academic Affairs Area (Attachment C)
      • Campus Camera System Upgrades (Attachment D)
      Anna Wu, Associate Vice Chancellor for Facilities Services
   b. Design Approval
      • The Pit Area Sidewalk Improvements (Attachment E)
      Anna Wu, Associate Vice Chancellor for Facilities Services
   c. Annual Endowment Fund Report
      Matt Fajack, Vice Chancellor for Finance and Administration (Attachment F)

FOR INFORMATION ONLY  (No formal action is requested at this time)

1. Athletic Improvements
   Bubba Cunningham, Director of Athletics (Attachment G)
2. FY 2015 UNC Investment Fund Performance Update and BOT Clean Energy Resolution Update
   Jonathon King, CEO of UNC Management Company (Attachment H)
3. Development Report
   David Routh, Vice Chancellor for University Development (Attachment I)
4. Financial Update
   Matthew Fajack, Vice Chancellor for Finance & Administration (Attachment J)
ATTACHMENT A

DESIGNER SELECTION – WILSON HALL ANNEX RENOVATION

This comprehensive renovation project will provide approximately 61,000 SF of new instructional and research laboratories, support spaces and animal facility for the Department of Biology. The renovation will also address the current building systems, life safety and other deferred maintenance deficiencies.

The project budget is $31,450,173 and will be funded by University funds.

This project was advertised on September 11, 2015. Twenty (20) proposals were received. Six (6) firms were interviewed on October 21-22, 2015. Members of the Board of Trustees did not participate in the interviews.

The committee recommended the selection of the three firms in the following priority order:

1. XXX, XX
2. XXX, XX
3. XXX, XX

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

Recommended action:

A motion to approve the three firms in the following priority order:

1. XXX, XX
2. XXX, XX
3. XXX, XX
Wilson Hall Annex Renovation

Campus Location Map

Project Site

Page 3/69

Board of Trustees

November 2015
DESIGNER SELECTION – DAVIE HALL FEASIBILITY STUDY

This programming and site feasibility study will evaluate the historic and distinctive significances of the existing Davie Hall & Annex buildings, immediate site, and the capacity in the north campus district context against the proposed expansion program of the Department of Psychology and Department of Laboratory Animal Medicine programs operated in Davie Hall.

The project budget is $290,000 and will be funded by University funds.

This project was advertised on August 17, 2015. Twenty-two (22) proposals were received. Six (6) firms were interviewed on October 29, 2015. Members of the Board of Trustees did not participate in the interviews.

The committee recommended the selection of the three firms in the following priority order:

1. XXX XXX, XX
2. XXX XXX, XX
3. XXX XXX, XX

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

RECOMMENDED ACTION

A motion to approve the three firms in the following priority order:

1. XXX XXX, XX
2. XXX XXX, XX
3. XXX XXX, XX
DAVIE HALL FEASIBILITY STUDY

PROJECT SITE

CAMPUS LOCATION MAP
DESIGNER SELECTION – ENERGY SERVICES UTILITY IMPROVEMENTS IN ACADEMIC AFFAIRS AREA

This project will improve the utility services to Swain and Abernethy Halls and to several academic buildings in the vicinity of Lenoir Drive.

The project budget is $5.7 million and will be funded by XXXX funds.

The Project was advertised on October 5, 2015. Five (5) proposals were received. XXXX (X) firms were interviewed on November 11, 2015. Members of the Board of Trustees did not participate in the interviews.

The committee recommended the selection of the three firms in the following priority order:

1. XXX, XX
2. XXX, XX
3. XXX, XX

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

RECOMMENDED ACTION

A motion to approve the three firms in the following priority order:

1. XXX, XX
2. XXX, XX
3. XXX, XX

1.
ENERGY SERVICES UTILITY IMPROVEMENTS

CAMPUS LOCATION MAP

Page 7/69
DESIGNER SELECTION – CAMPUS CAMERA SYSTEM UPGRADES

The UNC Chapel Hill campus has approximately eighty (80) existing closed circuit television (CCTV) security cameras distributed throughout the campus exterior spaces. The objective of this project is to upgrade the existing CCTV system for the entire campus. This project will evaluate, integrate, standardize and expand the existing CCTV infrastructure.

The project budget is $3.5M and will be funded by University funds.

This project was advertised on October 5, 2015. XXXX (X) proposals were received. XXXX (X) firms were interviewed on November 12, 2015. Members of the Board of Trustees did not participate in the interviews.

The committee recommended the selection of the three firms in the following priority order:

1. XXX XXX, XX
2. XXX XXX, XX
3. XXX XXX, XX

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

RECOMMENDED ACTION

A motion to approve the three firms in the following priority order:

1. XXX XXX, XX
2. XXX XXX, XX
3. XXX XXX, XX
DESIGN APPROVAL – PIT AREA SIDEWALK IMPROVEMENT

This project will improve the walkways and other site amenities around the Pit area. This area has a number of issues related to aging pavement and landscape. Differential settling of the sidewalk over time has resulted in many potential tripping hazards and water ponding during rainfall events. Additionally, aging trees have caused pavement upheaval and are in decline. Pedestrian congestion is an ongoing problem related to the current configuration of site walls and landscape material. This project seeks to remedy these issues.

The project budget is $2.3M and will be funded by University funds.

The Board of Trustees reviewed the project at its May 2015 meeting.

The design has been reviewed by the Design Review Committee.

The Chancellor’s Buildings and Grounds Committee approved the project at its May 2015 meeting.

RECOMMENDED ACTION

A motion to approve the design.
PIT AREA SIDEWALK IMPROVEMENTS

PROJECT SITE

CAMPUS MASTER PLAN

Page 10/69
PIT AREA SIDEWALK IMPROVEMENTS

LOCATION MAP

PROJECT AREA
PIT AREA SIDEWALK IMPROVEMENTS

EXISTING VEGETATION

DRAINAGE

SITE LIGHTING

SEATING
PIT AREA SIDEWALK IMPROVEMENTS

GREENLAW CORRIDOR EXISTING
PIT AREA SIDEWALK IMPROVEMENTS
ANNUAL ENDOWMENT FUND REPORT

Board of Governors’ regulations require that the institution’s Board of Trustees submit to the Board of Governors an annual report on the endowment fund. The annual report for the fiscal year ending June 30, 2015 is attached. The Endowment Board approved this report at its meeting on October 16, 2015.

RECOMMENDED ACTION

A motion to approve the June 30, 2015 annual report of the endowment fund and to transmit the report to the Board of Governors.
We are pleased to report that for fiscal year 2015, The University of North Carolina at Chapel Hill Endowment Fund (Endowment Fund) recorded a significant increase in its market value. During the fiscal year ended June 30, 2015, the market value of the Endowment Fund increased by $109.7 million to end the year at $1.38 billion. This increase in market value resulted from the combination of positive investment performance and the continuing generosity of donors to the Endowment Fund. The components of the $109.7 million increase in fiscal 2015 are 1) net investment return of $119.0 million, plus 2) net gifts and bequests totaling $54.9 million, less 3) $64.2 million distributed for program spending.

Over 99% of the Endowment Fund’s assets are invested in The University of North Carolina at Chapel Hill Foundation Investment Fund, Inc. (Chapel Hill Investment Fund), which in turn invests all of its assets in the UNC Investment Fund, LLC (UNC Investment Fund). The Endowment Fund also owns several commercial properties in Chapel Hill, North Carolina, that collectively represent less than 1% of the Endowment Fund’s total value. For the fiscal year ended June 30, 2015, the UNC Investment Fund generated an investment return of 9.3%. This return compares to the Strategic Investment Policy Portfolio (“SIPP”) benchmark return of 3.2% and a more traditional Global 70/30 Portfolio (70% MSCI All Country World Index / 30% Barclays Aggregate Bond Index) which returned just 1.1%. The UNC Investment Fund’s 12.3% annualized three-year return also outperformed both SIPP and the Global 70/30 Portfolio which returned 9.4% and 9.6%, respectively. For the five- and ten-year periods ended June 30, 2015, the UNC Investment Fund outperformed its long-term return target of CPI plus 5.5% with investment returns of 10.8% and 8.6%, respectively. This CPI plus 5.5% long-term return target reflects the goal of preserving the purchasing power of UNC Investment Fund after inflation and spending. A detailed description of the asset allocation of the Endowment Fund is provided on the following page along with aggregated asset class and benchmark returns.

The $64.2 million distributed from the Endowment Fund for spending in fiscal year 2015 represented 5.1% of the Endowment Fund’s beginning market value. This amount was computed in accordance with the distribution policy of the Chapel Hill Investment Fund. These funds were distributed to the University for spending on programs supported by the corresponding endowed accounts. The Board of the Chapel Hill Investment Fund authorized a 1.2% increase in the annual distribution rate for fiscal year 2016. This increase is consistent with the spending policy target threshold of increasing the rate by CPI each year.

Mr. Lowry Caudill served as the Chairman of the Endowment Fund Board of Trustees during the year. Other members of the Board were David Carroll, Max Chapman, Jr., John Ellison, Chancellor Carol Folt, Peter Grauer, Steve Lerner, Sallie Shuping-Russell, and John Townsend.

The Board of Trustees of The University of North Carolina at Chapel Hill has approved all transfers from the Endowment Fund for expenditures as recommended by the Chancellor. All expenditures have been made in accordance with the terms of the applicable gift, devise or bequest.

Respectfully submitted,

The Board of Trustees of the Endowment Fund of The University of North Carolina at Chapel Hill
Endowment Fund
The University of North Carolina at Chapel Hill

Asset Allocation as of June 30, 2015

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Biased Equity</td>
<td>$400,898,886</td>
<td>29.1%</td>
</tr>
<tr>
<td>Long/Short Equity</td>
<td>275,153,662</td>
<td>20.0%</td>
</tr>
<tr>
<td>Diversifying Strategies</td>
<td>100,431,087</td>
<td>7.3%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>108,685,697</td>
<td>7.9%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>266,899,052</td>
<td>19.4%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>92,726,784</td>
<td>6.7%</td>
</tr>
<tr>
<td>Energy &amp; Natural Resources</td>
<td>70,164,184</td>
<td>5.1%</td>
</tr>
<tr>
<td>Cash &amp; Other</td>
<td>60,533,806</td>
<td>4.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,375,768,312</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Asset Class and Benchmark Returns for Fiscal Year Ended June 30, 2015

<table>
<thead>
<tr>
<th>Category</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Equity Strategies</strong></td>
<td>8.4%</td>
</tr>
<tr>
<td>Blended Equity Benchmark*</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>Non-Equity Strategies</strong></td>
<td>1.6%</td>
</tr>
<tr>
<td>Blended Non-Equity Benchmark*</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Private Partnerships</strong></td>
<td>15.9%</td>
</tr>
<tr>
<td>Blended Composite Benchmark*</td>
<td>6.5%</td>
</tr>
<tr>
<td><strong>Cash &amp; Other</strong></td>
<td>0.0%</td>
</tr>
<tr>
<td>90-Day T-Bill</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

**Total UNC Investment Fund** 9.3%
**Strategic Investment Policy Portfolio** 3.2%

*Blended benchmarks reflect weighted SIPP benchmarks for the underlying asset classes.
INDOOR FOOTBALL PRACTICE FACILITY

100 YARD INDOOR PRACTICE FACILITY - AXON CUTAWAY
INDOOR FOOTBALL PRACTICE FACILITY
EDDIE SMITH FIELD HOUSE

INDOOR FOOTBALL PRACTICE FACILITY - EXTERIOR FIELD LEVEL VIEW
UNC Chapel Hill Investment Fund
Fiscal Year 2015 Review + Clean Energy Resolution Update

Presentation to The Board of Trustees of The University of North Carolina at Chapel Hill
November 18, 2015
Agenda

- FY 2015 UN CIF Performance Review
  - Clean Energy Resolution Update
UNCIF Return Summary
Periods ending June 30, 2015

- The UNC Investment Fund recorded a **9.3% net return in FY 2015**

- The FY ‘15 return beat benchmarks and peer group medians by wide margins:
  - UNCIF beat its primary benchmark (SIPP) by 6.1 percentage points (9.3% vs 3.2%)
  - UNCIF’s FY ‘15 return ranks in the top 5% in the Cambridge Associates universe of endowment funds
  - UNCIF beat the 1.1% return on a “traditional” 70% equity, 30% fixed income portfolio (Global 70/30 Portfolio\(^{(1)}\)) by 8.2%

- The Fund’s outperformance was driven by exceptionally strong investment manager performance

---

\(^{(1)}\) 70% MSCI All Country World Index / 30% Barclays Aggregate U.S. Bond Index
UNC Investment Fund
Investment Entity Structure

Manager

UNC Management Company, Inc. ("UNCMC")

Other Members

UNC Investment Fund, LLC
("UNCIF")
$4.6 billion

Controlling Member

Other Members

UNC Chapel Hill Foundation
Investment Fund, Inc. ("CHIF")
$2.9 billion

Other UNC Campuses and Affiliates

- Other UNC Chapel Hill Affiliated Funds
- Statutory Endowment of UNC Chapel Hill
- UNC Chapel Hill Foundation, Inc.

UNC-CH entities invest alongside other UNC campuses & affiliates

Note: As of June 30, 2015
UNC Chapel Hill Foundation Investment Fund, Inc.
As of June 30, 2015

UNC Chapel Hill Foundation Investment Fund
$2.9 Billion
Invested in UNC Investment Fund ($4.6 billion)

UNC Chapel Hill Affiliated Foundations & Other
$1.2 billion total
- 17 affiliated fdns including:
  - Arts & Sciences Fdn
  - Public Health Fdn
  - KFBS Fdn
- 8 others (non-fdns)
  - Foundation Unitholders
  - Scholarships
  - Professorships etc.

UNC Chapel Hill Statutory Endowment
$1.4 billion
- Endowment Unitholders
- Scholarships
- Professorships etc.

UNC Chapel Hill Foundation
$278.0 million
- Foundation Unitholders
- Scholarships
- Professorships etc.
In FY 2015 CHIF increased in value by $243.9 million:

1) positive net investment return of $255.6

2) $122.7 million in net contributions

3) less, annual endowment spending distribution of $134.5 million

<table>
<thead>
<tr>
<th></th>
<th>June 30, 2014 ($ in millions)</th>
<th>June 30, 2015 ($ in millions)</th>
<th>FY 2015 Increase ($ in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory Endowment</td>
<td>$1,266.1</td>
<td>$1,375.8</td>
<td>$109.7</td>
</tr>
<tr>
<td>UNC Chapel Hill Foundation</td>
<td>268.7</td>
<td>278.0</td>
<td>9.3</td>
</tr>
<tr>
<td>Other Affiliated Foundations</td>
<td>957.7</td>
<td>1,033.9</td>
<td>76.2</td>
</tr>
<tr>
<td>Other CHIF participants</td>
<td>147.5</td>
<td>196.2</td>
<td>48.7</td>
</tr>
<tr>
<td><strong>Total CHIF</strong></td>
<td><strong>$2,640.0</strong></td>
<td><strong>$2,883.9</strong></td>
<td><strong>$243.9</strong></td>
</tr>
</tbody>
</table>
UNC Investment Fund
Primary Objective

- **Primary Objective**
  - Preserve the inflation-adjusted purchasing power of the endowment while providing a predictable and growing stream of spending distributions
  - To accomplish this objective, the endowment must earn an annualized total rate of return of at least ~8% over rolling 5 – 10 year (and longer) periods
  - Managing the return volatility of the endowment helps to stabilize the annual spending distribution

<table>
<thead>
<tr>
<th>Spending + Inflation:</th>
<th>Return Objective &gt; 8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% - 5.5% + 2% - 3%</td>
<td></td>
</tr>
</tbody>
</table>
Investment Implementation

**Asset Allocation**
- The portfolio management process starts with asset allocation
- Strategic Investment Policy Portfolio targets established by UNCIF’s Board of Directors

**External Investment Management**
- UNCMC hires third-party (external) investment management firms, allocating the Fund to investment managers based on the respective firm’s investment strategy, liquidity, risk profile, and other factors

**Board of Directors Approval**
- The Executive Committee of UNCIF’s Board of Directors must approve all investment manager hires recommended by UNCMC
Strategic Investment Policy Portfolio (SIPP)

SIPP Target Allocations:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Target</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Biased Equity</td>
<td>27%</td>
<td>20 - 35%</td>
</tr>
<tr>
<td>Long / Short Equity</td>
<td>18%</td>
<td>12 - 24%</td>
</tr>
<tr>
<td>Diversifying Strategies</td>
<td>12%</td>
<td>8 - 16%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>10%</td>
<td>5 - 18%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>18%</td>
<td>14 - 22%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>8%</td>
<td>5 - 12%</td>
</tr>
<tr>
<td>Energy &amp; Natural Resources</td>
<td>7%</td>
<td>5 - 10%</td>
</tr>
</tbody>
</table>

Projected L/T Real Return\(^1\): 6.3%

\(^1\) Per Cambridge Associates Asset Allocation Model (as of October 2012)
Financial Markets: Public Markets Summary

FY 2015: July 1, 2014 to June 30, 2015 (12 months)

**Equities**
- MSCI EAFE: -4.2%
- S&P 500: -0.7%
- MSCI All Country World: -5.1%

**Fixed Income**
- Barclays U.S. Corporate High Yield: 1.9%
- Barclays Aggregate: 1.9%
- Barclays U.S. Gov't/Credit Long Term: -0.4%

**Commodities**
- Bloomberg Commodity Index: -23.7%
- Spot Gold: -11.7%

**Hedge Funds**
- HFRI Fund Weighted Composite: 2.4%
- HFRI Equity Hedge: 2.4%

**Summary**
- U.S. equity markets significantly outperformed both other developed and emerging markets.
- Oil prices dropped from ~$112/barrel at the beginning of the FY to ~$62/barrel.
- Interest rates moved sharply higher during the final quarter of FY 2015, tempering the year’s prior gains.
Asset Class Returns
FY 2015: July 1, 2014 to June 30, 2015 (12 months)

- 5 of 7 primary asset classes beat their benchmark
- Strong absolute performance driven by Private Equity
- Strong relative performance driven by 3 equity strategies and E&NR

Public equity managers added value
Defensive asset classes weak in FY ‘15

Private Equity - very strong returns
Weak absolute / strong relative performance from Energy & Nat. Resources

-8.5% -21.0%

Long Biased Equity Long/Short Equity Diversifying Strategies Fixed Income Private Equity Real Estate Energy & Natural Resources

UNCIF Asset Class SIPP Benchmark Component

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Long-Term Performance
As of June 30, 2015

- The Fund has achieved its long-term objective across all periods
- For the 10- and 15-year periods - a more traditional equity/bond portfolio has fallen short of this target

(1) 70% S&P 500 Index / 30% Barclays Aggregate U.S. Bond Index
At its May 2015 meeting, the Investment Fund Board:

- approved the FY2016 Annual Distribution Rate of $432 per CHIF unit
- increasing the per unit distribution rate by 1.2% over FY2015
- the $432 per unit rate will be distributed to CHIF participants on 6/30/2016
Chapel Hill Investment Fund
Distribution $ Amount as a % of Market Value

The distribution rate as a percent of market value is a by-product of the “constant growth rule” methodology.
Performance Update  
UNCIF Performance to September 30, 2015

**UNCIF recorded a -2.1% net loss in the first quarter of FY 2016**

<table>
<thead>
<tr>
<th>To September 30, 2015</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Return</td>
<td>UNCF</td>
</tr>
<tr>
<td>FY 2016 YTD (3 months)</td>
<td>-2.1%</td>
</tr>
<tr>
<td>CYTD 2015 (9 months)</td>
<td>3.8%</td>
</tr>
<tr>
<td>Annualized Return</td>
<td></td>
</tr>
<tr>
<td>3 Years</td>
<td>10.4%</td>
</tr>
<tr>
<td>5 Years</td>
<td>9.2%</td>
</tr>
<tr>
<td>10 Years</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Global equity indices recorded significant declines in the first quarter of FY 2016:
- S&P 500 Index: -6.4%
- MSCI All Country World (ACWI): -9.4%

These indices are also negative for the calendar year-to-date (through 9/30):
- S&P 500 index: -5.3%
- MSCI All Country World (ACWI): -7.0%

- The Fund has protected value (so far) in a very challenging FYTD environment and added value over the CYTD period
- Longer-term returns are still strong
Wrap-Up
FY 2015: July 1, 2014 to June 30, 2015

- The Fund’s 9.3% return represents a very strong result given the financial market landscape during the year
- The Fund’s three equity asset classes, Long Biased, Long/Short and Private Equity, comprising about two-thirds of the Fund’s value, have generated very strong performance in recent years and added significant value in FY 2015
- The Private Portfolio is a significant driver of long-term performance
- The Fund’s returns for the 1-, 3-, 5- and 10-year periods exceed the SIPP benchmark and the primary return objective of 5.5% real (after inflation)
Agenda

- FY 2015 UN CIF Performance Review
- Clean Energy Resolution Update
Board of Trustees Resolution
September 2014

WHEREAS, the Board of Trustees of The University of North Carolina at Chapel Hill (University) recognizes the University’s role in seeking solutions to global issues using the educational, research and financial resources of the University; and

WHEREAS, through the investment of the University’s endowment funds the University can influence the development of environmentally friendly alternative energy sources; and

WHEREAS, investing in the development of environmentally friendly alternative energy sources promotes economic growth, energy independence and environmental and public health.

NOW THEREFORE BE IT RESOLVED, the Board of Trustees of The University of North Carolina at Chapel Hill requests that UNC Management Company, research targeted investments for the University’s endowment assets that advance environmentally friendly clean energy strategies consistent with applicable asset allocation and investment objective policies.

Two Primary Investment Guidelines:

1. Development of environmentally friendly alternative energy sources
2. Consistent with applicable asset allocation and investment objective policies
UNCIF will grow its exposure to Alternative Energy investments…
…but this process will take time

- Investible opportunities within Renewable Energy are relatively limited compared to the Hydrocarbon-based market
  - Alternative Energy investment returns have been mixed so far
  - UNCIF’s Alternative Energy investment experience has generally been positive

- UNCMC’s due diligence process takes time and manpower
  - Most Alternative Energy opportunities we see suffer from one or more critical “Deal Killers”

- Despite a limited investible universe, UNCMC has identified several potentially attractive opportunities

- Continued communication / dialogue with Board of Trustees is important
Renewable Energy sources are a growing share of the market and the universe of investment options mirrors this trend.

“Electricity consumption will increase at an average annual rate of 0.8% from 2013 to 2040, nearly in line with expected population growth. Continuing a recent trend toward lower levels of carbon-intensive generation, natural gas and renewable generation meet almost all of the increase.”

-U.S. EIA

“Although hydropower remains the world’s leading renewable energy, solar and wind continue to dominate investment in new renewable capacity and are quickly becoming the highest-profile renewable energy sources.”

-Worldwatch Institute

“We’ve seen this transition in investor comfort level, from conventional power generation into actually feeling more comfortable and more receptive towards renewable generation technologies like wind and solar.”

-Charles Park, Goldman Sachs

Global Share of Power Generation by Fuel Type

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Renewable Energy</th>
<th>Renewable Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>2015E</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>2030E</td>
<td>76%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: EIA as of 6/25/13

VC / PE Investment in Renewable Energy ($BN)

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment ($BN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0.7</td>
</tr>
<tr>
<td>2005</td>
<td>1.6</td>
</tr>
<tr>
<td>2006</td>
<td>4.2</td>
</tr>
<tr>
<td>2007</td>
<td>5.7</td>
</tr>
<tr>
<td>2008</td>
<td>10.0</td>
</tr>
<tr>
<td>2009</td>
<td>4.5</td>
</tr>
<tr>
<td>2010</td>
<td>5.6</td>
</tr>
<tr>
<td>2011</td>
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<tr>
<td>2012</td>
<td>4.1</td>
</tr>
<tr>
<td>2013</td>
<td>2.1</td>
</tr>
<tr>
<td>2014</td>
<td>2.7</td>
</tr>
<tr>
<td>2030E</td>
<td>15.4</td>
</tr>
</tbody>
</table>

Source: Bloomberg New Energy Finance, UNCMC Estimates
Alternative Energy investments represent a growing share of UNCIF and reside across multiple asset classes

UNCIF Alternative Energy Exposure vs. Peer Set ($MM)

- 2005: $5.0
- 2015: $17.6
- 2015 Peer Average: $16.3

13% CAGR

UNCIF Alternative Energy Exposure as of 6/30/15

- $17.6MM
- 28% Public Equity
- 12% Private Equity
- 23% Venture Capital
- 37% Energy & Natural Resources

Total Private Portfolio, 72%

Source: UNCIF data as of 6/30/15, Sustainable Endowments Institute
Opportunity set within Renewable Energy is relatively limited compared to the Hydrocarbon-based market.

Nearly 60% of UNCIF’s ENR portfolio is invested in E&P and Midstream businesses. The relative lack of analogous opportunities in Renewables presents a challenge as UNCIF shifts towards Alternative Energy.
Expanding scope of Alternative Energy increases UNCIF’s ability to impact the shift towards Renewable Power

- A strict focus on Alternative Energy sources (spec. Renewable Energy Generation Projects), unnecessarily minimizes UNCIF’s investible opportunity set

- Alternative Energy Technology and Services are critical parts of the transition from fossil fuels and represent a large share of potential new investment opportunities
  - Batteries / Power Storage
  - Solar installers / Contractors

- Demand-focused investment opportunities are also important and growing areas
  - “Smart” metering
  - Energy efficient buildings and retrofit financing

- UNCIF invests via outside partners so broadening potential investment universe will increase the set of partners we are able to work with
In spite of market tailwinds and popular support…

…Alternative Energy investment returns have been mixed

“Weak IPO exits, political uncertainty, global macroeconomic stagnation, and fierce competition all played a role in the space’s [clean tech] weak performance.”

- Shiraz Haji, Cleantech Group

“Some of the diversified managers went into difficult spaces like solar panel and wind turbine manufacturing and really got their hands burned.”

- Alexandra Ready, Cambridge Associates

“For CalPERS, clean tech investing has got an L-curve…for lose. Our experience is that this has been a noble way to lose money.”

- Joseph A. Dear, former CIO of the California Public Employees’ Retirement System

*Clean Tech Benchmark represents gross company-level returns of 1,421 clean tech investments across 812 private companies. Investments were drawn from 480 different funds (345 VC funds, 129 PE funds and 6 infrastructure funds).
…but UNCIF’s Alternative Energy Investment experience has generally been positive

- Provides custom design, financing, installation & monitoring of full-service solar power systems
- $2.2MM invested in 2011-2012
- Generated a 3.3x multiple since initial investment
- Investment exposure via three fund managers across multiple asset classes – Private Credit, Buyout and Venture Capital

- Focused on developing, owning, and operating utility-scale wind, geothermal, and solar generation
- $3.9MM invested in 2007
- Generated a 2.0x multiple during 7 year hold period
- Investment exposure via a power infrastructure manager in the Energy & Natural Resources portfolio

- Largest dedicated residential solar company in the U.S.
- $0.3MM invested in 2008
- Generated a 6.1x multiple since initial investment with a current market value of $1.9MM
- Investment exposure via an early stage investor in the Venture Capital portfolio

Source: UNCIF data as of 6/30/15
UNCMMC Investment Due Diligence Process
Rigorous, Time Consuming, Man Power Heavy

- **Relationship Focused**
  - Who we entrust UNCIF’s capital to matters the most
  - Reputation, ability, track record

- **Process Oriented**
  - Standardized due diligence
  - Disciplined and consistent

- **Research Driven**
  - Subjective and objective analysis
  - Professional references
  - In-person, on-site interaction

- **Consensus Based**
  - Private/Public team underwriting
  - Investment team feedback with CIO oversight

**UNCMMC’s due diligence process takes time but is necessary in order to appropriately underwrite any potential investment**
Most Alternative Energy opportunities we see suffer from one or more critical “Deal Killers”

1. Lack of Track Record
   - Little or no proof of the team’s investment acumen

2. Strategy Uncertainty
   - Dependence on Government Subsidies / Regulation

3. Unattractive Risk / Reward Proposition
   - Excess Currency, Political or other risk per unit of underwritten return

4. Organizational Issues
   - Team, Going Concern Risk, etc.

Alternative Energy investments must be consistent with UNCIF’s applicable asset allocation and investment objective policies
Opportunities in UNCMC’s Alternative Energy investment pipeline currently come from three main sources

- **Generalist Investment Managers**
  - Global investment firm that manages investments across multiple asset classes (private equity, energy, real estate, credit strategies, and hedge funds) and multiple sectors.
  - Ex: Blackrock Infrastructure, Blackstone, Carlyle Group, KKR

- **Specialist Alternative Energy Managers**
  - Investment firm that targets a niche market or specific sector. The manager leverages the team's industry expertise to achieve long-term value
  - Ex: True Green Capital, New Energy Capital, Hudson Clean Energy Partners, Generation Investment Management

- **Direct Project / Company Investments**
  - Provide equity or debt capital directly to corporations or projects.
  - Ex: Purchase shares or corporate bonds from EnerNOC
Despite a limited investible universe, UNCMC has identified several potentially attractive opportunities

- **Opportunity #1: Existing Generalist Manager in the Energy & Natural Resources Portfolio**
  - $450MM fund targeting equity investments in electric power generation projects; companies that own, manage, develop or sponsor such projects; and other opportunities in the electricity generation industry.
  - Issues: without strict focus, may not be encouraged to invest significant portion of fund in renewable energy unless the relative attractiveness of these deals is superior to alternative potential investments.
  - Timing: 2Q16

- **Opportunity #2: Existing Generalist Manager in the Venture Capital Portfolio**
  - $325MM fund targeting early stage investments in the technology-enabled consumer, telecommunications, and semiconductor markets. The firm has shown strong deal flow in the clean tech space as prior investments include SunRun and Azure Power (Indian solar power producer).
  - Issues: heightened risk at early stage; competition from investors with specialized focus on clean tech investments; lack of dedicated allocation to clean tech investments.
  - Timing: 2Q16

- **Opportunity #3: Prospective Specialist Manager Focused on Alternative Energy Infrastructure**
  - $500MM fund targeting debt investments in small to mid-size alternative energy infrastructure projects. Previous investments include solar and biofuels projects.
  - Issues: fund concentrated in risky asset class; pipeline to deploy capital; small team with recent additions at senior level; competition with larger debt funds and banks; direct exposure to interest rates.
  - Timing: 4Q15
What to Expect from UNCMC Going Forward

- Continuing development of internal expertise
- Continued application of consistent, disciplined investment due diligence process
- Further expansion of pipeline of opportunities
- Continued communication / dialogue with Board of Trustees
- Increased exposure to Alternative Energy investments in UN CIF
Cash Totals

YTD Comparison as of November 16, 2015

<table>
<thead>
<tr>
<th></th>
<th>FY15</th>
<th>FY16</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifts</td>
<td>$39,678,584</td>
<td>$39,814,844</td>
<td>0%</td>
</tr>
<tr>
<td>Grants</td>
<td>$22,969,514</td>
<td>$20,008,613</td>
<td>-13%</td>
</tr>
<tr>
<td>Cash Total</td>
<td>$62,648,098</td>
<td>$59,823,457</td>
<td>-5%</td>
</tr>
</tbody>
</table>
New Cash and Commitments Totals

YTD Comparison as of November 16, 2015

FY15: $67,699,138
FY16: $89,501,260
Increase: +32%

YTD Comparison as of November 16, 2015
The Pipeline

YTD Comparison as of November 1, 2015

<table>
<thead>
<tr>
<th></th>
<th>YTD FY15</th>
<th>YTD FY16</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposals</td>
<td>$430,737,503.81</td>
<td>$379,479,347.64</td>
<td>-12%</td>
</tr>
<tr>
<td>Intents</td>
<td>$447,124,951.00</td>
<td>$565,562,950.00</td>
<td>+26%</td>
</tr>
<tr>
<td>Total</td>
<td>$877,862,455</td>
<td>$945,042,297.64</td>
<td>+8%</td>
</tr>
</tbody>
</table>

YTD FY16 Comparison as of November 1, 2015
Great Start to FY16!

Arts and Sciences: $12,565,464 ($9,387,122)

Educational Foundation: $9,525,480 ($3,743,018)

Library: $1,437,425 ($332,129)

Lineberger: $12,417,688 ($1,629,108)

Medical Foundation: $11,760,292 ($6,075,378)

Pharmacy: $2,056,648 ($1,560,619)

Public Health: $4,380,702 ($1,783,429)

Scholarships & Student Aid: $5,407,981 ($1,292,703)
Development Update
November 18th, 2015
Meeting of the UNC-CH Board of Trustees

David S. Routh
Vice Chancellor for Development
Agenda

• UNC-Chapel Hill FYE 15 (Prelim) vs FYE 14 (Audit)

• Income Statement Highlights

• FY 15-16 State Operating Budget Allocations

• State of NC Prior Year Recap

• State of NC Economic Outlook
## Income Statement – FYE 15 and FYE 14

### Revenues

<table>
<thead>
<tr>
<th>Operating Revenues:</th>
<th>FY2015 (Preliminary)</th>
<th>FY2014 (Audited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student tuition and fees, net</td>
<td>$395,005,215</td>
<td>$361,770,560</td>
</tr>
<tr>
<td>Patient services, net</td>
<td>323,700,133</td>
<td>312,054,448</td>
</tr>
<tr>
<td>Federal grants and contracts</td>
<td>716,563,873</td>
<td>641,518,512</td>
</tr>
<tr>
<td>State and local grants and contracts</td>
<td>17,226,880</td>
<td>35,071,213</td>
</tr>
<tr>
<td>Non-governmental grants and contracts</td>
<td>106,761,998</td>
<td>143,564,204</td>
</tr>
<tr>
<td>Sales and services, net</td>
<td>461,579,399</td>
<td>458,458,394</td>
</tr>
<tr>
<td>Interest earnings on loans</td>
<td>1,167,156</td>
<td>822,910</td>
</tr>
<tr>
<td>Other operating revenues</td>
<td>9,280,125</td>
<td>2,871,956</td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td><strong>2,031,284,779</strong></td>
<td><strong>1,956,132,197</strong></td>
</tr>
</tbody>
</table>

### Expenses

<table>
<thead>
<tr>
<th>Operating Expenses:</th>
<th>FY2015</th>
<th>FY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and benefits</td>
<td>1,505,426,030</td>
<td>1,467,756,494</td>
</tr>
<tr>
<td>Supplies and materials</td>
<td>188,308,238</td>
<td>159,906,582</td>
</tr>
<tr>
<td>Services</td>
<td>886,631,027</td>
<td>715,832,709</td>
</tr>
<tr>
<td>Scholarships and fellowships</td>
<td>119,452,838</td>
<td>112,449,587</td>
</tr>
<tr>
<td>Utilities</td>
<td>88,372,804</td>
<td>85,156,899</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>136,492,665</td>
<td>130,438,445</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td><strong>2,924,683,602</strong></td>
<td><strong>2,671,540,716</strong></td>
</tr>
</tbody>
</table>

**Operating loss**

<table>
<thead>
<tr>
<th>FY2015</th>
<th>FY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>(893,398,823)</td>
<td>(715,408,519)</td>
</tr>
</tbody>
</table>
## Income Statement – FYE 15 and FYE 14

<table>
<thead>
<tr>
<th>Non-Operating Revenues (Expenses)</th>
<th>FY2015</th>
<th>FY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>State appropriations</td>
<td>479,186,534</td>
<td>482,727,867</td>
</tr>
<tr>
<td>Non-capital grants -- student financial aid</td>
<td>36,232,220</td>
<td>18,621,786</td>
</tr>
<tr>
<td>Other non-capital grants</td>
<td>88,596,395</td>
<td>122,610,959</td>
</tr>
<tr>
<td>Non-capital gifts, net</td>
<td>155,065,095</td>
<td>97,416,148</td>
</tr>
<tr>
<td>Interest and fees on debt</td>
<td>(67,458,622)</td>
<td>(66,217,726)</td>
</tr>
<tr>
<td>Federal interest subsidy on debt</td>
<td>2,107,038</td>
<td>2,109,311</td>
</tr>
<tr>
<td>Gain (Loss) on sale of assets</td>
<td>(7,867,599)</td>
<td>-</td>
</tr>
<tr>
<td>Other non-operating expenses</td>
<td>40,498,390</td>
<td>(6,161,644)</td>
</tr>
<tr>
<td><strong>Net non-operating revenues</strong></td>
<td>921,766,187</td>
<td>909,478,938</td>
</tr>
<tr>
<td><strong>Income before other revenues, expenses, gains, or losses</strong></td>
<td>28,367,363</td>
<td>194,070,419</td>
</tr>
<tr>
<td>Capital appropriations</td>
<td>1,600,000</td>
<td>4,313,326</td>
</tr>
<tr>
<td>Capital grants</td>
<td>29,630,524</td>
<td>41,506,762</td>
</tr>
<tr>
<td>Capital gifts</td>
<td>11,260,732</td>
<td>5,898,596</td>
</tr>
<tr>
<td>Additions to endowments</td>
<td>19,697,293</td>
<td>25,608,504</td>
</tr>
<tr>
<td><strong>Increase in net position</strong></td>
<td>90,555,912</td>
<td>271,397,607</td>
</tr>
</tbody>
</table>
The University maintained its solid financial position at June 30, 2015 with net position increasing $91 million for the fiscal year:

- Operating revenues increased 3.8% to $2.0 billion in FY15 from $1.9 billion in FY14, driven by increases in student tuition and fees and federal grants and contracts but were mitigated by 50.9% and 25.6% decreases in state and local grants and contracts and non-governmental grants and contracts;

- Tuition rates for fiscal year 2014-2015 remained stable for undergraduate residents and increased 11.7 percent for undergraduate non-residents, 4.2 percent for graduate residents, and 1.4 percent for graduate non-residents;

- Overall grants and contracts revenue grew by approximately 2.5%, with growth in federally sponsored awards being offset slightly by reductions in State and non-governmental sponsored awards;

- Operating expenses increased 9.5% to $2.9 billion in FY15 from $2.7 billion in FY14, driven by changes in service expenses and supplies and materials expenses; and

- Non-operating revenues and expenses increased 1.43% to $922 million in FY15 from $909 million in FY14, driven by higher non-capital gift receipts.
FY 15-16 State Operating Budget Allocations

FY 2015-16 Base Budget $480,065,674

Additions to Base Budget:

Campus Specific:
- Morehead Area Health Education Center 8,000,000
- Medical Scholars Program 1,000,000
- UNC Core 1,000,000
- Less: Hunt Institute (737,230)

Total Additions to Base Budget 9,262,770

Reductions to Base Budget:
- Management Flex Reduction (4,036,857)
- Enrollment Change Funding (491,559)
- Smart Initiatives (486,728)

Total Reductions to Base Budget (5,015,144)

Adjusted FY 2015-16 Base Budget $484,313,300
The first half of fiscal year 2014-2015 showed a moderate growth pattern with an increase in the pace of economic activity.

Global uncertainties along with a harsh winter temporarily stalled the economy in the winter, but growth was restored by early spring.

Overall growth for the fiscal year matched the consensus forecast; however collections were $447.5 million (2.1%) above the $21 billion general fund forecast, attributable to two factors affecting income tax collection:

- Corporate taxable profits accelerated as wages remained low and write-offs on losses from the recession dwindled, pushing collections 21.2% above forecast expectations;
- Timing in personal income tax collections from changes meant lower monthly withholding revenue, but higher final payments and smaller refunds in April. Prior forecast didn’t fully capture those dynamics.

Personal income tax collections were $193.1 million above the $10.9 billion forecast and refunds were $366 million less than had been expected.

Sales tax collections improved over last year as expected, and were on target $7.6 million above forecast.

Corporate income tax came in $232.5 million above forecast, falling 2.2% over last year despite a reduction in tax rate from 6.0% to 5.0%.
State of NC Economic Outlook

- Economic activity continues to move at a steady, moderate pace. To date, there is no sign of an accelerating economy on the horizon.

- While the economy does continue to improve, the pace is not strong enough to produce a robust job market. The most recent Wall Street Journal forecasts of macroeconomic activity foresees remaining at the current pace for the next two years.

- Despite this improvement, 77% of those economist believe the economy faces more downside than upside risk, with global economic conditions being cited as the biggest concern.

- State economic forecasts continue to expect the growth in overall economic activity to remain at or slightly below average. While robust expansionary growth is not projected, solid, steady growth is anticipated throughout the current biennium.

- The employment outlook for the state has stabilized and additional improvement is anticipated. Non-farm employment is expected to experience gains of 2.3% the first year of the biennium, compared to 2.5% this past fiscal year (Non-farm employment is expected to net 90,000 – 100,000 jobs).
State of NC Economic Outlook

• Matching this outlook, Babson Capital / UNC Charlotte Economic Forecast projects Non-farm employment will grow by 115,000 jobs in calendar year 2016, and inflation-adjusted economic activity is expected to increase by 2.8%.

• The pace of employment growth should help improve the state’s labor market and place greater pressure on wages to rise.

• Wages are expected to grow by 4.1% during the fiscal year, well ahead of the last fiscal year’s estimated growth of 3.5%.

• For overall wage income to grow at a stronger pace, non-farm employment will need to meet a projected growth of 2.3%.

• The unemployment rate was 5.9% in August (compared to 6.0% in August 2014). Over the next six months, the unemployment rate is expected to remain above 5.5%.