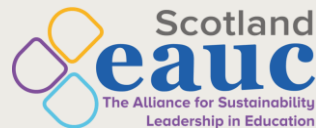


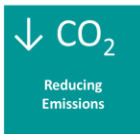
Non-Domestic Energy Efficiency Frameworks (NDEEF) 2020-2024

EAUC Scotland Autumn Forum 2020

Andrew Wholley
NDEEF PSU Principal Consultant



NDEE Frameworks 2020-2024



- **Two Frameworks**; under £1m, over £1m
- **Energy Performance Contract (EnPC)** Frameworks
- Open to complete Public and Third Sector, with **focus on FE and HE opportunities**
- **Efficiency first approach**
- Supporting to **meet and exceed carbon reduction targets**
- Latest Frameworks of Contractors live until **March 2024**

NDEE Framework Contractors > £1m

➤ 11 Framework Contractors



Energy Solutions

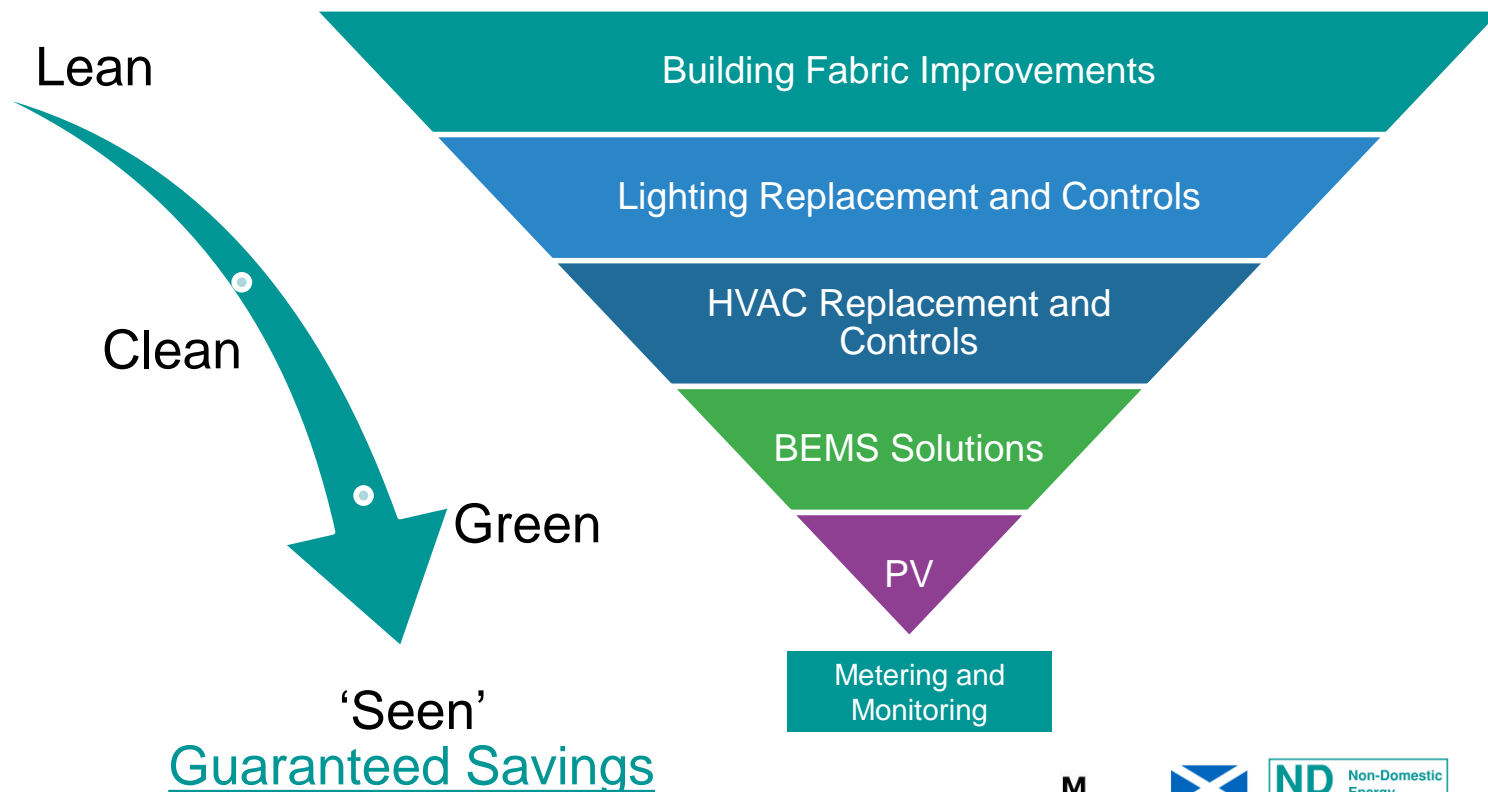


NDEE Framework Contractors < £1m

➤ 5 Framework Contractors



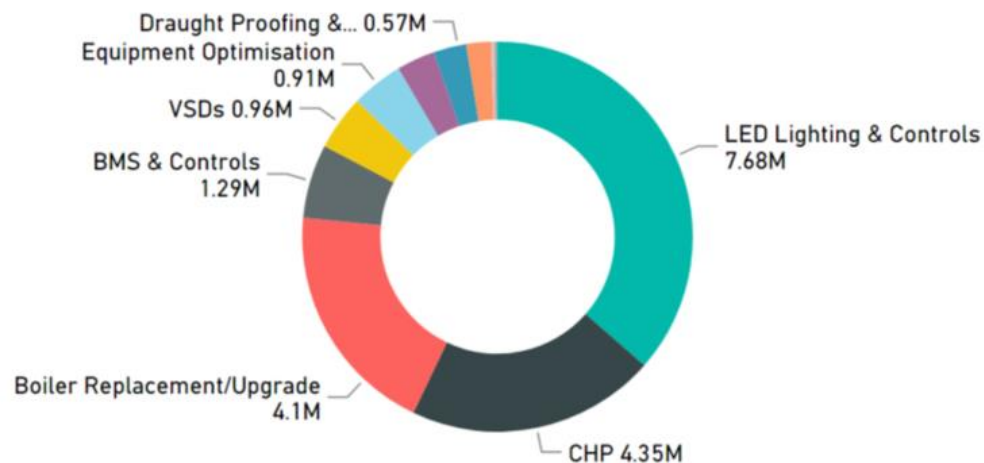
EnPCs - Whole Building Approach to Energy Efficiency



NDEE Framework 2016-2020 Projects

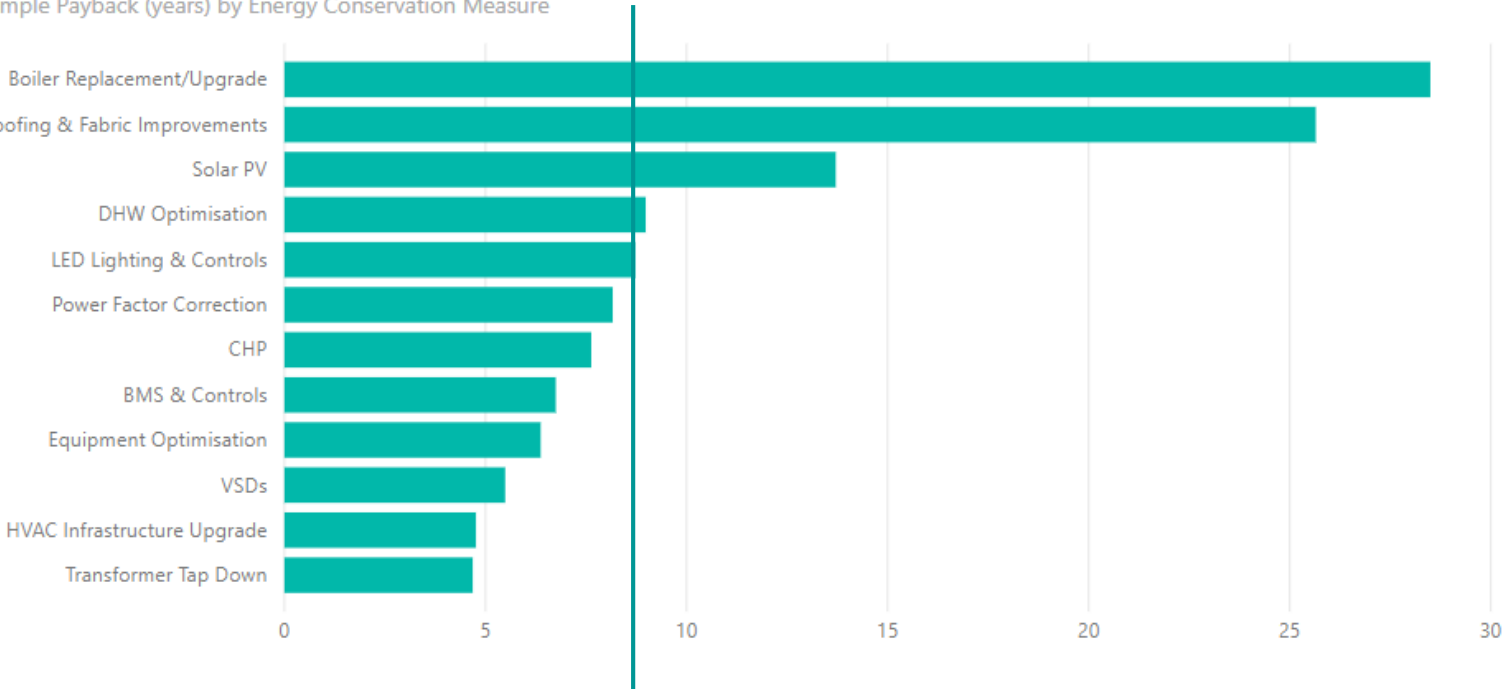
- Local Authorities
- NHS
- Universities
- Higher Education

- ~£25m total investment to date
- £0.5m to £3.8m in scale



EnPCs - Whole Building Approach to Energy Efficiency

Average of Simple Payback (years) by Energy Conservation Measure



Typical multi-ECM EnPC Payback

Why NDEE Frameworks EnPCs?

1

Payment Linked to Guaranteed Savings

Detailed Measurement and Verification outcomes linked to Contractor payment. Savings targets can be £, kWh and/or t.CO₂.

2

Specialist Contractors

OJEU compliant Frameworks of specialist Contractors, with open Sub-Contractors for differing project requirements/localities

3

Standardised Processes and Documentation

Standard form contracts and agreements, alongside template tender and Investment Grade Audit documentation, streamlining development and delivery.

4

Funded Project Support

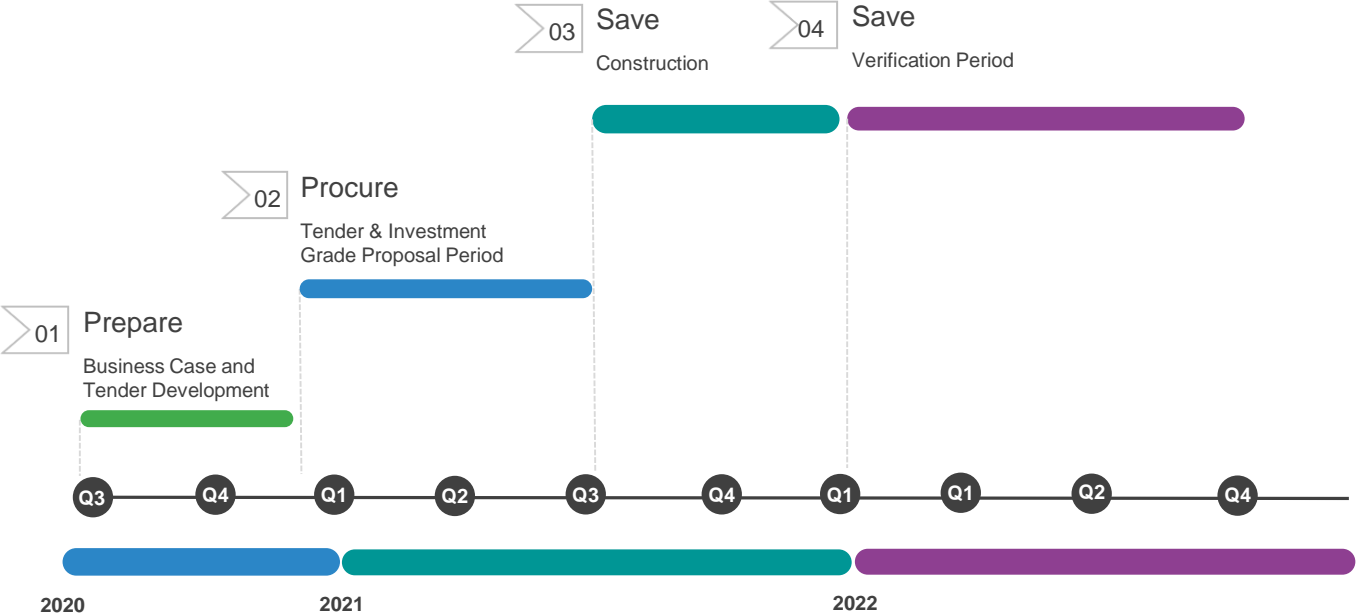
Up to £50,000 grant funded Project Support Unit Project Management, Technical Advisory and Procurement Advisory services.

5

Wide Funding Opportunities

Third party financing opportunities. Close working with other grant or loan bodies such as Salix Finance and SFC.

Typical EnPC Programme



NDEEF Project Support Unit

- Project Support Unit (PSU):
 - Project Management, Technical and Procurement Advisory Support
 - Grant funded by Scottish Government up to **£50,000 per project**

NDEESupportUnit@mottmac.com

<http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/NDEE>

Project Management

- Process and Contractor Management Support
- Data Collation

Technical Advisory

- Project Scoping and Benchmark Assessments
- Energy Audits
- Tender and Detailed Design Support
- Measurement and Verification Specialist Support

Procurement Advisory

- Business Cases
- Tender and Contract Development
- Ad-hoc specialist support

PSU Consortium

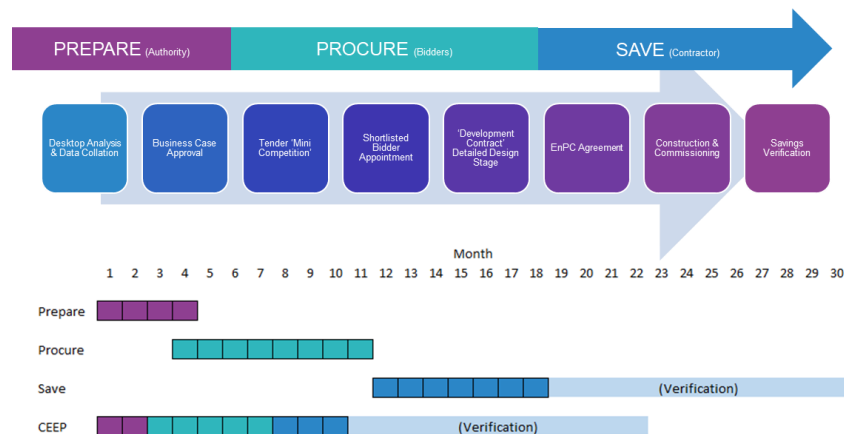


Case Studies – Colleges Energy Efficiency Pathfinder (CEEP)

- Capital stimulus funded project for Colleges



- ~£3.2m investment
- ~£350K savings / annum
- ~1500 tons.CO₂ / annum



Past Case Studies – Colleges Energy Efficiency Pathfinder

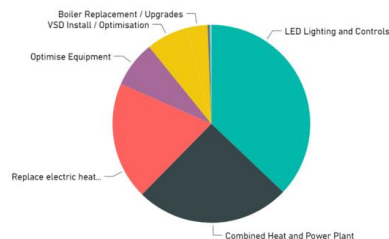
Edinburgh College

2M
Cost exc. VAT

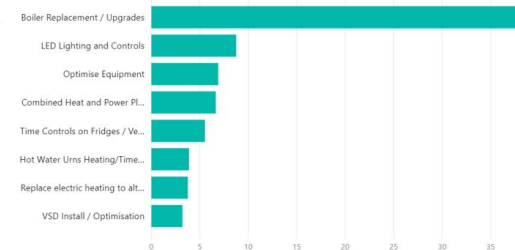
228K
Predicted Energy Savings

9.66
Average of Simple Payback
(Years)

Predicted Energy Savings by Energy Conservation Measure



Simple Payback (Years) by Energy Conservation Measure



Savings verified in 2018/19

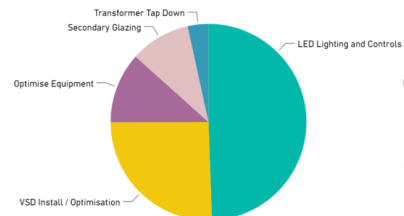
West Lothian College

535K
Cost exc. VAT

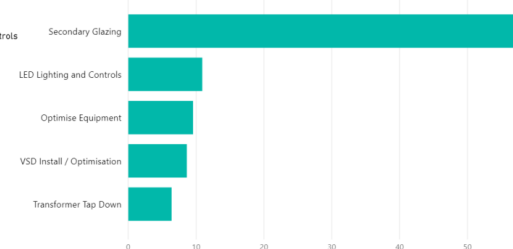
36K
Predicted Energy Savings

18.65
Average of Simple Payback
(Years)

Predicted Energy Savings by Energy Conservation Measure



Simple Payback (Years) by Energy Conservation Measure



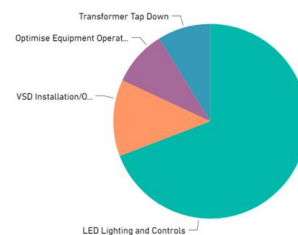
Borders College

351K
Cost exc. VAT

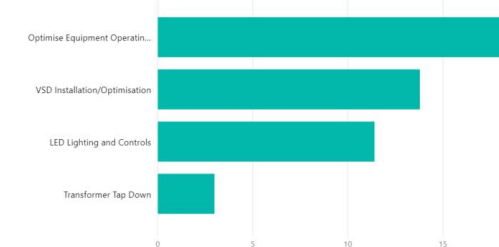
30K
Predicted Energy Savings

11.68
Average of Simple Payback
(Years)

Predicted Energy Savings by Energy Conservation Measure



Simple Payback (Years) by Energy Conservation Measure



Case Studies – University of St Andrews



University of
St Andrews



Scottish Funding Council
Promoting further and higher education

£3.75M

Total Contract
Value - SFC
UCRF Funding

1,000
t.CO₂ ↓

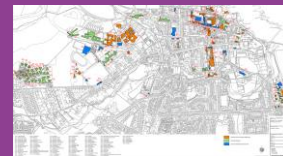
Annual Savings

650K
£ ↓

Annual Savings

£200/
t.CO₂LT

Lifetime Carbon
Savings Capex
Ratio



Wider
environmental /
buildings
improvements

Past Case Studies – University of St Andrews

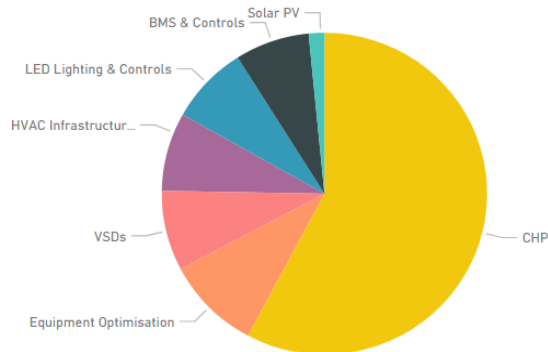
University of St Andrews

3.75M
Cost exc. VAT

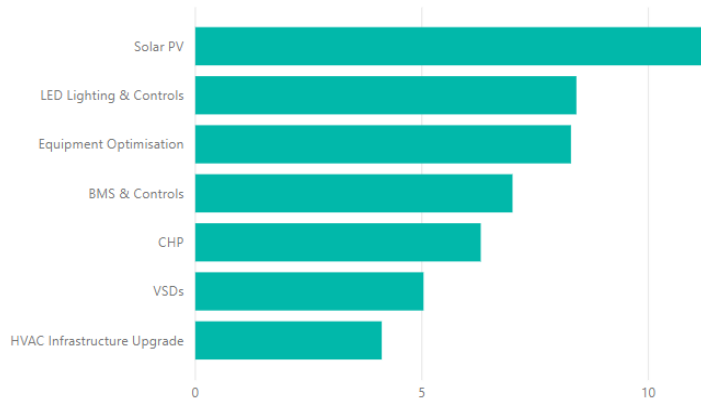
652.36K
Predicted Energy Savings

6.65
Average of Simple Payback (years)

Predicted Energy Savings by Energy Conservation Measure



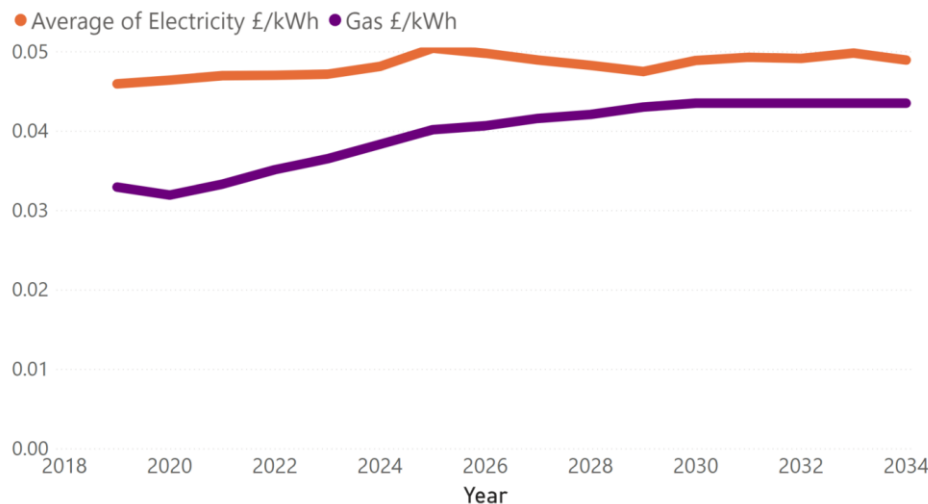
Average of Simple Payback (years) by Energy Conservation Measure



Initiating 'Savings' Period

Future Challenges and Opportunities – Low Carbon Heat

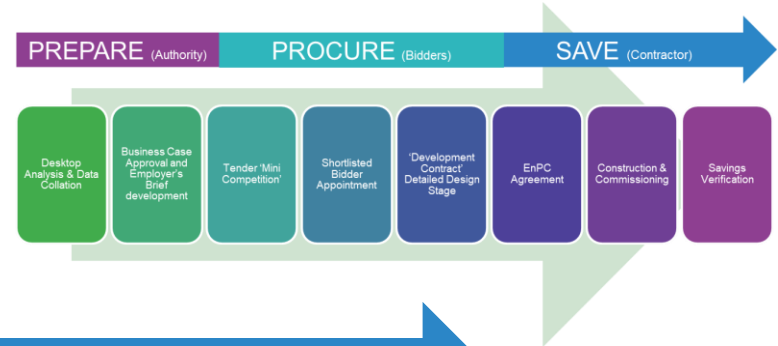
Cost of 1 unit of heat (COP 3 electric heat pump, 90% gas boiler)



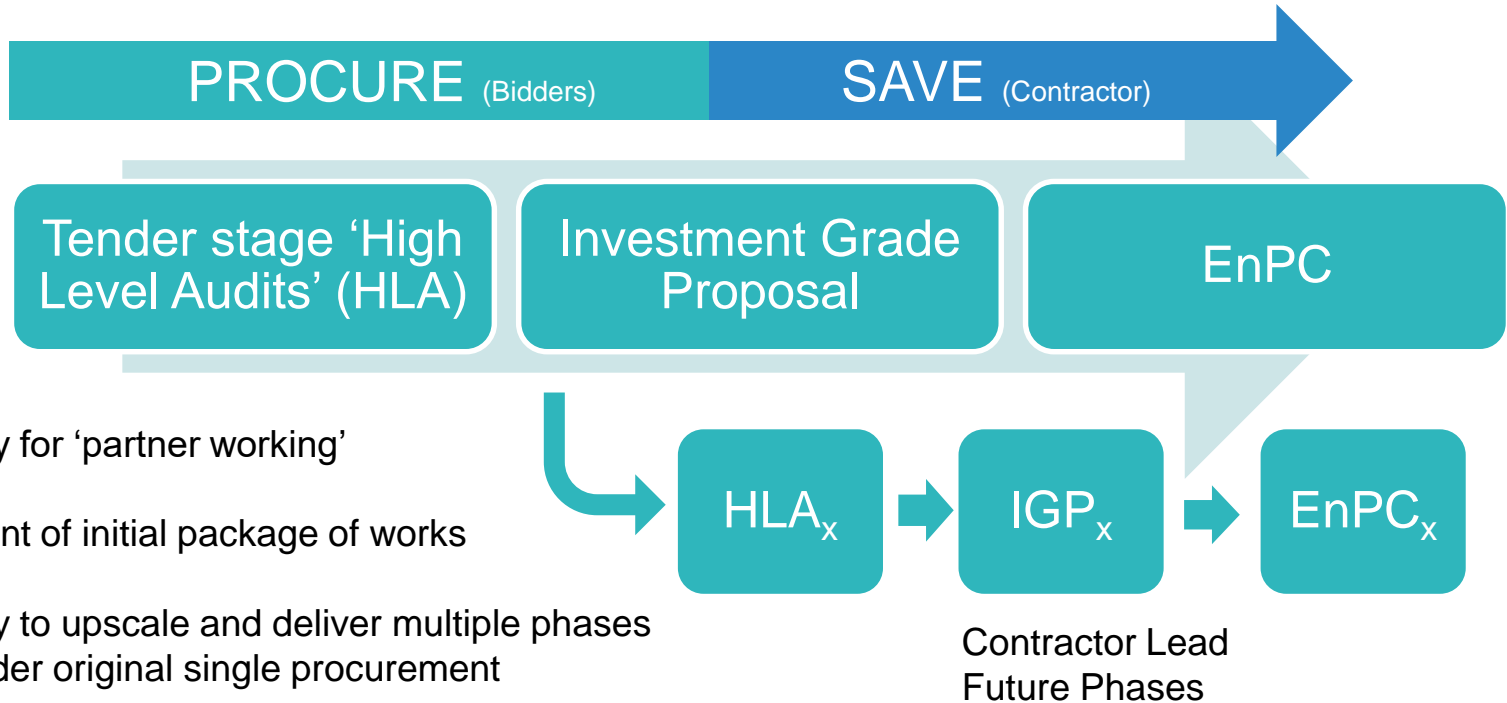
- **Carbon as new currency?**
- **Whole building approach** to balance cost and carbon savings
- Business cases and tenders developed to focus on **whole life carbon savings**

Future Challenges and Opportunities – Partner Working

- Typical projects focused on procurement of individual package of works
- One tender, one EnPC



Future Challenges and Opportunities – Contractor Partner Working



- Opportunity for 'partner working'
- Procurement of initial package of works
- Opportunity to upscale and deliver multiple phases of work under original single procurement
- Reduce procurement activities, time and costs

Contact

NDEE Frameworks Project Support Unit:

NDEESupportUnit@mottmac.com

Scottish Government's Energy Efficiency Website:

<http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/NDEE>

NDEE Frameworks Website:

[SG's NDEE Framework website](#)

Questions?

Thank you

