

City Chambers  
DUNDEE  
DD1 3BY

18th August, 2020

TO: ALL MEMBERS OF THE TAY  
CITIES REGION JOINT COMMITTEE

Dear Sir/Madam

**TAY CITIES REGION JOINT COMMITTEE**

Will you please attend a MEETING of the **TAY CITIES REGION JOINT COMMITTEE** on Friday, 21st August, 2020 at 10.00 am, to be held remotely.

Please submit any apologies to Veronica Thomson, Committee Services Officer or telephone (01382) 434205 or by e-mail [veronica.thomson@dundeecity.gov.uk](mailto:veronica.thomson@dundeecity.gov.uk).

Members of the Press or Public wishing to join the meeting should contact Veronica Thomson, Committee Services Officer on telephone (01382) 434205 or by e-mail [veronica.thomson@dundeecity.gov.uk](mailto:veronica.thomson@dundeecity.gov.uk) by **5 pm on Wednesday, 19th August, 2020**.

Yours faithfully

ROGER MENNIE

Clerk to the Joint Committee

**1 WELCOME AND APOLOGIES**

**2 DECLARATION OF INTEREST**

Elected members are reminded that, in terms of The Councillors Code, it is their responsibility to make decisions about whether to declare an interest in any item on this agenda and whether to take part in any discussions or voting.

This will include all interests, whether or not entered on your Register of Interests, which would reasonably be regarded as so significant that they are likely to prejudice your discussion or decision-making.

**3 MINUTE OF MEETING OF 17TH JULY, 2020 - Page 1**

(Copy enclosed).

**4 TAY CITIES DEAL UPDATE - Page 4**

(Presentation by the Programme Management Officer enclosed).

**5 TCD014 EDEN PROJECT – FULL BUSINESS CASE - Page 9**

(Report No TCRJC10-2020 by the Executive Director, Enterprise & Environment - Fife Council)

**6 DATE OF NEXT MEETING**

Friday, 18th September, 2020 at 10 am, to be held remotely.

**The Committee may resolve under Section 50(A)(4) of the Local Government (Scotland) Act 1973 that the press and public be excluded from the meeting for the undernoted items of business on the grounds that they involve the likely disclosure of exempt information as defined in paragraphs 6 and 9 of Part I of Schedule 7A of the Act.**

**7 PROJECT SCENARIO & RESPONSE TO MR STEWART, UNDER SECRETARY OF STATE FOR SCOTLAND'S LETTER**

ITEM No ...3.....
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At a MEETING of the **TAY CITIES REGION JOINT COMMITTEE** held remotely on Friday, 17th July, 2020.

Present:-

Angus Council

Councillor Bill DUFF  
Councillor David FAIRWEATHER  
Councillor Derek WANN

Dundee City Council

Councillor John ALEXANDER  
Councillor Lynne SHORT  
Councillor Richard McCREADY

Fife Council

Councillor David ROSS  
Councillor Karen MARJORAM  
Councillor Tim BRETT

Perth & Kinross Council

Councillor Murray LYLE  
Councillor John DUFF  
Councillor Grant LAING

Non-Elected Members

Ellis WATSON, DC Thomson  
Gordon McGUINNESS, Skills Development Scotland  
Councillor Andrew PARROTT, TACTRAN  
Alison HENDERSON, Dundee and Angus Chamber of Commerce  
Hayley MEARNS, Voluntary Action Angus

Also Present

Greg COLGAN, Tay Cities Deal  
David MARTIN, Dundee City Council  
Steve BELL, Dundee City Council  
Robin PRESSWOOD, Dundee City Council  
Keith WINTER, Fife Council  
Margo WILLIAMSON, Angus Council  
Vivian SMITH, Angus Council  
David LITTLEJOHN, Perth & Kinross Council  
Roger MENNIE, Tay Cities Deal  
Mark MITCHELL, Tay Cities Deal  
Caroline Warburton, Visit Scotland  
Martin Beard,  
Mark SPEED, TACTRAN  
Lucy BYATT, Hospitalfield Trust  
Martin BEARD, Hospitalfield Trust  
Mo SAUNDERS, Tay Cities Deal

Councillor David ROSS, in the Chair.

**I APOLOGIES**

Apologies had been intimated from Karen Reid, Steve Grimmond, Nigel Seaton, Michael Wright, Gary Malone and Councillor MacMillan Douglas.

## **II DECLARATION OF INTEREST**

No declarations of interest were made.

## **III MINUTE OF MEETING OF 19TH JUNE, 2020**

The minute of meeting of 21st February, 2020 was submitted and approved.

## **IV MATTERS ARISING**

There were no matters arising.

## **V TAY CITIES DEAL UPDATE**

The Tay Cities Programme Manager gave a presentation to members highlighting developments in the Deal process. The signing date was still to be agreed, however both the UK and Scottish Governments had given assurances that they remained committed to reaching a Deal.

It was reported that three Business Cases had now received Government approval to proceed to the Full Business Case stage:

- Eden Campus
- Growing Tay Cities Biomedical Cluster
- cyber Quarter

and it was agreed that a short note be prepared for members of the Joint Committee providing details on each of these projects.

The Joint Committee welcomed the progression of the Projects, but expressed concern that a signing date for the Deal had still not been identified. The Chair advised that the Leaders of the four Constituent Local Authorities had made further written representations to the UK and Scottish Governments seeking assurances that the Deal be signed as soon as possible but no response had been received to date.

It was noted that the Chair of the Management Group had a weekly scheduled call with Government representatives 21st July. The Chair requested a report back to the Council Leaders and Joint Committee members following the discussion.

## **VI TCD021(a) CULTURE & TOURISM INVESTMENT PROGRAMME - HOSPITALFIELD - FULL BUSINESS CASE**

There was submitted Report No TCRJC8-2020 by the Director of Strategic Policy, Transformation & Public Sector Reform – Angus Council seeking approval of the Full Business Case for project TCD021(a) Hospitalfield.

The Joint Committee agreed to:-

- (i) Consider the report and the executive summary of the Full Business Case for TCD021(a) Hospitalfield attached at Appendix 2.
- (ii) Note that the Management Group had approved the Outline Business Case and Full Business Case for TCD021(a) Hospitalfield and was recommending it for approval to the Joint Committee.
- (iii) Approve the Full Business Case, approving the allocation, in principle, of £5.5million to the project, subject to the signing of the Tay Cities Deal and the securing of the outstanding match funding, subject to the conditions at paragraph eight being met.



(iv) Agree the release of £3million over financial years 2020/21 and 2021/22 where 50% match funding was already in place. £2million was profiled in financial year 2021/22 and £1million was profiled in 2021/22 subject to the conditions at paragraph eight being met.

(v) Note the expectation that a further £2.5million was profiled for financial year 2023/24 subject to 50% match funding being secured.

## **VII RES ACTION PLAN PRESENTATION**

A presentation on the Regional Economic Action Plan by the Head of Planning & Development – Perth and Kinross Council, was given to the Joint Committee.

Consultation exercises had been ongoing to further develop this Plan with partners, however in the light of the Covid pandemic it had been agreed that this was an opportunity to revise and rescope the Plan, and to build back better with a future fit operating model. Short term actions would focus on local recovery, to be led by local partnerships and medium-term actions would concentrate on the development of regional recovery, noting that a fully flexible response was critical.

Bold measures would be required to enable equity and fairness for all citizens, create resilient and sustainable key business sectors and to ensure that the Tay Cities Region become an even more vibrant and prosperous place.

The Joint Committee welcomed the further development and rescoping of the Action Plan, noting that community wealth building would be a key feature within the plan. A co-ordinated and integrated approach would be used in its consultation process, whilst noting the importance of private sector involvement and support.

It was agreed that following the consultation process, the finalised Plan be submitted to the Joint Committee for approval.

## **X DATE OF NEXT MEETING**

Friday, 21st August, 2020, to be held remotely.

David ROSS, Convener.

# PMO Presentation to Joint Committee

21<sup>st</sup> August 2020



# Deal Headlines - What We Know

- No new signing date
- Scottish Government offer is 10 years.
- The following matters remain outstanding with government before the Partnership can enter into signing:
  - confirmation from the UK Govt on their Deal period offer;
  - confirmation from the UK Govt on assistance with peak cash flow in the first five years
- Both governments have confirmed that there is no additional Deal money to that already committed.



# Deal Headlines - Latest News

- Letter received by the 4 LA Leaders from Mr Stewart which:
  - Acknowledged the partnerships request for a 10 year Deal
  - Indicated that Mr Stewart had hoped to resolve this request as part of the Chancellor's Summer Economic update
  - Confirmed that the Summer Economic Update announced the quantum's for the Falkirk and Islands Deals and had not covered the Tay Cities Deal request.



# Deal Headlines - Latest News

Letter from Mr Stewart (continued)

- Highlighted that whilst the UK Govt have been able to agree Deals over 10 years, the amount of funding that they have committed to the Tay Cities programme is higher which means that the financial implications of pulling forward £50 million of expenditure is greater.
- Confirmed that he is continuing to raise the issue with the Treasury and they have agreed to consider it as part of the Comprehensive Spending Review which happens this autumn.
- Commented that the key to bringing forward the funding will be to convince the UK Government that the projects are deliverable on an accelerated basis.



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**REPORT TO:** TAY CITIES REGION JOINT COMMITTEE – 21 AUGUST 2020

**REPORT ON:** EDEN CAMPUS - FULL BUSINESS CASE

**REPORT BY:** KEITH WINTER

**REPORT NO:** TCRJC10-2020

## **1.0 PURPOSE OF REPORT**

1.1 This report seeks approval of the Full Business Case (FBC).

## **2.0 RECOMMENDATIONS**

2.1 The Joint Committee is asked to:

- a. Consider this report and the executive summary of the FBC for TCD014 Eden Campus at Appendix 2, noting that the full FBC is available on request.
- b. Note that the Management Group has approved the Outline Business Case and Full Business Case and is recommending it for approval to the Joint Committee.
- c. Approve the FBC subject to both governments confirming that they have approved the FBC.
- d. Approve the FBC subject to the State Aid assurances and risk mitigations put forward by St Andrews University.
- e. Approve the Full Business Case, approving the allocation, in principle, of £26.5 million Capital to the project, subject to the signing of the Tay Cities Deal or agreement by government to release funds by exception.
- f. Note the intention to ask the Scottish Government to release funding in arrears to the Accountable Body, for onward distribution to the project owner, prior to Full Deal signing.

## **3.0 INTRODUCTION**

3.1 This project was awarded up to £26.5 million in the Heads of Terms Agreement dated 22 November 2018. It will deliver the development of a 32.5 acre brownfield site into a Centre of Excellence in Low Carbon and Renewable Energy innovation. It is targeting to deliver 659 jobs and lever in £88 million of additional investment towards the Deal. The key project information is at Appendix 1.

3.2 The FBC is presented for approval which if granted will enable the project to draw down the allocated funding. Funding is drawn down when the project submits a claim for money which has already been spent.

## **4.0 DESCRIPTION OF PROJECT**

4.1 The UK Government will commit up to £24.5 million and the Scottish Government will commit up to £2 million to the development of Eden Campus by the University of St Andrews. This project aims to repurpose a 32.5 acre brownfield site into a Centre of Excellence in Low Carbon

and Renewable Energy innovation. It will provide a location for innovators from academia, industry and technology to collaborate and trial new technologies and networks.

4.2 Eden Campus will bring industry alongside academic expertise from around the world and is central to the University of St Andrews' strategy to become the UK's first energy carbon neutral university. The campus will contribute to national and international ambitions for carbon reduction, while simultaneously driving employment, training, and apprenticeships in the low carbon sector.

4.3 The funding will enable the development of three interconnected components:

- An Enterprise Hub to support the start-up and growth of new and emerging companies focused on low carbon innovation. It will incorporate a combined incubator and accelerator facility which will offer companies space and business support services.
- The GENESIS Centre, a new research and development facility focused on the storage and conversion of energy. The Centre will provide a space for companies to access academic and industrial expertise, develop and test innovative new approaches to low carbon energy systems, engage with other companies, and build business-to-business collaborations.
- An upgrade of the power supply to the Eden Campus (and North East Fife), including a smart energy primary sub-station. This will be capable of importing and exporting power from traditional and renewable sources. It will be an active part of electricity grid management for Fife. It will help demonstrate innovative services and products, enabled by new technology and data to offer efficient, collaborative and inclusive energy solutions, capable of scaling up for national use to meet the drive for low carbon power.

Output	Target uplift	Date due
Leverage	£88 million	2033/34
Jobs	659	2034/5

4.4 The project has also undertaken work to build links with the emerging Mercury Fund focused in Angus.

## 5.0 FINANCIAL IMPLICATIONS

5.1 This project is currently profiled to spend a total of £26.5 million capital from the Tay Cities Deal funding. The funding is anticipated to be drawn down as below. The project will lever in additional funding of £88 million.

5.2 The Deal is not currently signed and this profile is therefore subject to agreement between the partnership and Governments. There will also need to be agreement amongst the partnership over the profile, before it is put to Governments

Year	20/21	21/22	22/23	23/24	24/25	26/26	27/27	27/28	28/29	29/30	Total
	11,179	6,575	4,746	4,000							26,500

### 5.3 Risk

The project has been spending at its own risk for a considerable period of time. Therefore, intention is to ask the Scottish Government to release funding in arrears to the Accountable Body, for onward distribution to the project owner, prior to Full Deal signing. If the project is not included in the Full Deal a sum equal to the funding paid to it would not be added back into the Full Deal award to be available to other projects.

The risk of this happening is considered to be very low. The project has already started on site; both Governments and the Partnership continue to fully support the project and it is included within all the Deal Documentation being prepared. There is no suggestion that it will not be



included. This risk applies to any projects who have an approved Full Business Case and seek the payment of funding in arrears ahead of the Deal being signed.

## 6.0 IMPLEMENTATION PLAN

6.1 The key partners, milestones, outcomes and risks are set out below.

### Partners

Partner	Role/Responsibility
University of St Andrews	Lead partner. Responsible for project governance, reporting, procurement and operation of the Eden Campus.
Scottish Power Energy Networks	Lead role in the design and build of a new primary sub-station (Power Upgrade). Also responsible for the health and safety requirements of this component of the project.
Fife Council	Investor in the development of the Enterprise Hub at Eden Campus. Experience of design and delivery of business support services, especially for entrepreneurs and new businesses.

### Milestones

Deliverable	Due Date	Status
Approval of Full Business Case by Tay Cities Joint Committee	2020	Underway
Enabling Works	2016 onwards	Underway
Opening of Enterprise Hub (Phase1)	2020/21	Procurement
Commissioning of power sub-station	2023	Planning & Design
Commissioning Genesis Location Study	2020	Procurement
Start construction of Phase 2 of Enterprise Hub	2021	Not started
Completion of Enterprise Hub (Phase 2)	2024	Not started
Start construction Genesis buildings	2021	Not started
Completion of Genesis	2024	Not started
85% occupancy achieved	2027	Not started

### Outcomes and Targets

Targets	Baseline	Target Uplift	Date
Jobs created on site	0	659	2034
Leverage of other investment through City Deal	N/A	£88 million	2033/34
M <sup>2</sup> new business space delivered	0	TBC	2025
Companies located on-site	1	20	2034
Increase in Business Turnover	0	TBC	2035
Reduction in Carbon Dioxide emissions	0	TBC	2034

### Key Project Risks and Mitigations

Risk	Mitigation
Release of the Tay Cities Deal funding does not match University's spend profile.	Early approval of the Full Business Case for the investment by Tay Cities Joint Committee. The University to develop funding options for any cash flow issues.
Delays to infrastructure investment caused by legal challenges to individual components within the Eden Campus development programme.	Make appropriate provision for legal advice and use expertise to ensure Eden Campus projects are developed to minimise risks of successful legal challenge.
The commercial model does not deliver the expected income to make Eden Campus self-sustaining within its target timescale.	Constant review procedures established to review robustness of income projections and related assumptions. Sustained fundraising strategy for revenue costs.
Inability to recruit and retain sufficiently skilled and experienced staff throughout the Eden Campus programme negatively impacts on delivery.	Establish links with a range of Stakeholders and Consultants who might provide secondees in the event of a recruitment shortage.  Identify current and future resource needs and develop a resourcing plan.

## 7.0 DECISION PATHWAY

7.1 The project has met the decision pathway milestones as follows.

Decision Pathway Gateways				
Stage	Milestone	Date achieved	Evidence (quoting from the decision in minutes)	RAG status
OBC	Governments' Endorsement	1 July 2020	Email from UK government on behalf of both governments dated 1 July 2020	G
	Thematic Board recommendation	8 July 2020	Email from Thematic Board co-chair noting feedback of review to follow. Feedback then received.	G
	Management Group approval	30 July 2020	Note of actions from meeting of 30 July 2020.	G
	Joint Committee informed	17 July 2020	The Joint Committee were informed in the PMO presentation on 17 <sup>th</sup> July.	G
FBC	Governments' Endorsement	tbc	The FBC has been circulated to governments who have	R

			indicated that feedback will postdate this meeting.	
	Thematic Board recommendation	12 August 2020	Email from the Chair of the Innovation and International Thematic Board.	G
	Management Group recommendation	17 August 2020	By email from members of the Management Group.	G
	Joint Committee approval	<i>On agenda for 21 August 2020</i>		A

## 8.0 POLICY IMPLICATIONS

This report has not been subject to an assessment of any impacts on Equality and Diversity, Fairness and Poverty and Environment. However, the project FBC for which approval is sought has carried out an Equality and Fairer Scotland impact assessment. No Environmental Impact Assessment was required.

## 9.0 CONSULTATIONS

- 9.1 The Tay Cities Deal Management Group were consulted in the preparation of this report. The S95 Officer has approved this report.

## 10.0 BACKGROUND PAPERS

- 10.1 None.

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 Phone number: 03451 555 555 x 442 284

Date: 17 August 2020

## APPENDIX 1

**Key Project Information**

Project Information	
Project number	TCD014
Project name	Eden Campus
Project owner	Geoff Morris
Responsible Finance Officer	Andy Goor
Management Group Sponsor	Keith Winter
Award amount under TCD	Up to £26.5 million
Jobs - target number of jobs to be created	659
Leverage to be achieved	£88 million

APPENDIX 2

Executive Summary attached as separate document.





University of  
St Andrews

# Tay Cities Deal Full Business Case Summary



**BE DIFFERENT  
BE EDEN**

## EDEN CAMPUS TAY CITIES DEAL

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## EDEN CAMPUS TAY CITIES DEAL

## THE STORY

## The Vision

The year is 2035: it is almost a decade since the University of St Andrews became carbon neutral in its energy consumption. Since that milestone, the University has been unrelenting in its pursuit of Government net zero carbon targets. An Environmental Sustainability Board was established during the height of the coronavirus pandemic in 2020. Its purpose to drive changes in culture and deliver the pioneering methods behind the University's vision to become the UK's first net zero carbon institution.

Much of the pioneering work was undertaken at Eden Campus. Support from the Tay Cities Deal gave a significant boost to the University's efforts to create a thriving, innovative and inclusive business community. At the time, the World was grappling with the human and economic impact of Covid-19 and universities played a significant role in not only researching the coronavirus and creating vaccines but also in the process of economic recovery. While the virus had temporarily reduced carbon emissions and slowed down global warming the clock was still ticking.

Eden Campus itself, has long been a net zero carbon campus. A combination of biomass heat, solar PV, implementing R&D from the Genesis Centre (that celebrated its 10<sup>th</sup> Anniversary in 2032), inward investment in smart technologies, EV utilisation, building management and design and changed working patterns demonstrated what could be achieved on a small scale and applied more widely.

The Campus has been a hub for demonstrating not only scientific and technical achievements but also the entrepreneurial and commercial applications. Vitamins are produced from captured CO<sub>2</sub>, smart cell chips are being used as a diagnostic tool to predict system degradation in batteries, a hydrogen refuelling station has been built and a further 30 inventions have moved from lab bench to commercialisation. In addition, the Campus supplies heat and power to the local community as well as the University and businesses in and around St Andrews.

Over 600 people work at Eden Campus, many from nearby villages and towns. Each year, an established apprenticeship scheme provides technical and engineering trainees to Campus businesses. There is a thriving atmosphere in Guardbridge with over 400 new families settling in the village. The primary school has more than trebled in size to meet new demand. A medical and community centre was opened in 2028 providing services to the community and the Campus. By 2030, the famous old boiler house had been restored. The top floor restaurant, with panoramic views of the Estuary, showcases local produce and doubles as a vocational training centre for people starting careers in the catering and hospitality sector. It is a stepping-stone to jobs in local hotels and restaurants that are active supporters. The ground floor houses an artisan bakery and several workshops. Early inward investors in the Eden Campus project have established UK offices in the building, there is a suite of conference facilities that doubles as a weekend cinema venue.

In St Andrews, the student population has grown by more than 10% to a little over 10,000, meanwhile a Christmas tree planted in 2016 now stands at 25 feet tall and, unusually, the lights remain in place throughout the year so that visitors can illuminate the tree by riding static bicycles. This is one of 20 green initiatives around the Campus open to the visiting public as part of an interactive educational walking tour.

In 2030, the Campus Corporate Social Fund celebrated raising £500,000 for employment and training schemes. Further afield, the University is working to build a third campus in Canada after the successful opening of Eden Campus Two in SE Asia.

Such a vision is the aspiration which the University has set out, in embarking on the ambitious developments at Eden Campus. It is achievable within the timescales proposed, with careful planning, a dedicated Programme Board providing leadership to a skilful delivery team and sheer hard work. The University is building an extensive range of resources, of which the contribution from Tay Cities Deal funding will be essential to build the critical mass for an exciting new development.



## EDEN CAMPUS TAY CITIES DEAL

**What are we trying to do?**

We are creating a platform for innovative economic activity in North East Fife with a focus on de-carbonising society. We will be seeking to work with business, industry, government, and investors to create a place where green energy, product development and innovation, academia, and entrepreneurship come powerfully together. This will accelerate the process of transfer of knowledge from the lab to the real world.

As a whole, Eden Campus is a 32.5-acre industrial site (formally a famous paper mill that closed in 2008 with the loss of 350 local jobs), with capacity to co-locate industry alongside academic expertise from across Scotland, thereby utilising knowledge, skills and research to exploit emerging commercial opportunities. Many of the intended enabling projects have been delivered in the pre-Heads of Terms phase, other infrastructure work was initiated in Year 1 of Tay Cities Deal against an agreed budget and Year 2 projects have been procured and are “shovel-ready”.

**What do we mean by innovation?**

The case for city deal support is based on the development of Innovation. At Eden Campus, we support the MIT definition of Innovation, which is the: “process of taking ideas from inception to impact”. When we speak of Innovation in the context of the Eden Campus development, we mean specifically that:

- Our activities will assist companies to develop new products, processes or services, which have commercial applications;
- They will be able to develop those products and bring them to market faster than would otherwise be the case;
- The knowledge input for these developments will come from leading-edge research, from one of the UK's top Universities;
- Eden Campus becomes the place where that research can enrich and benefit companies, by helping them to solve problems, advance their R&D, and undertake testing and demonstration with the help of trained staff.



We are aware that there are many other facilities in Scotland which promote Innovation. Our approach is not purely based on Eden Campus being the newest Innovation facility in the Fife area; as it has been

observed, "there is no point thinking we are being innovative in inventing the plough, when the farmer in the next field has a tractor". We strive for Eden Campus to be innovative in a global context; to develop and pursue some of the best ideas in their field, and to support Scotland's companies to become market leaders, particularly in solutions to the major climate and social challenges facing us today.

## EDEN CAMPUS TAY CITIES DEAL

## The Eden Campus Projects

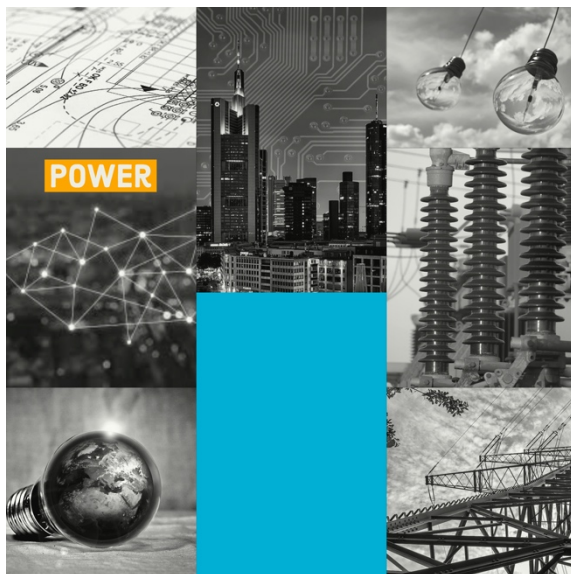
Within this Business case, we are creating detailed TCD proposals for 3 project elements of the overall site.

### Project 1: Power upgrade to the Campus & surrounding area

An adequate and reliable supply of power on site is a key enabling development for Eden Campus, opening up potential elsewhere on the site. Working closely with Scottish Power Energy Networks (SPEN), we have developed a proposal to establish a new 'innovation-enabled' smart primary sub- station on Eden Campus. It will demonstrate a range of the newest available technologies including the potential for integration of tech and smart grid monitoring and control. It will be capable of importing and exporting power and will be an active and dynamic part of the grid management. It gives both resilience and an innovative approach to energy systems in North East Fife while supporting SPEN's goal to become a distribution systems operator.

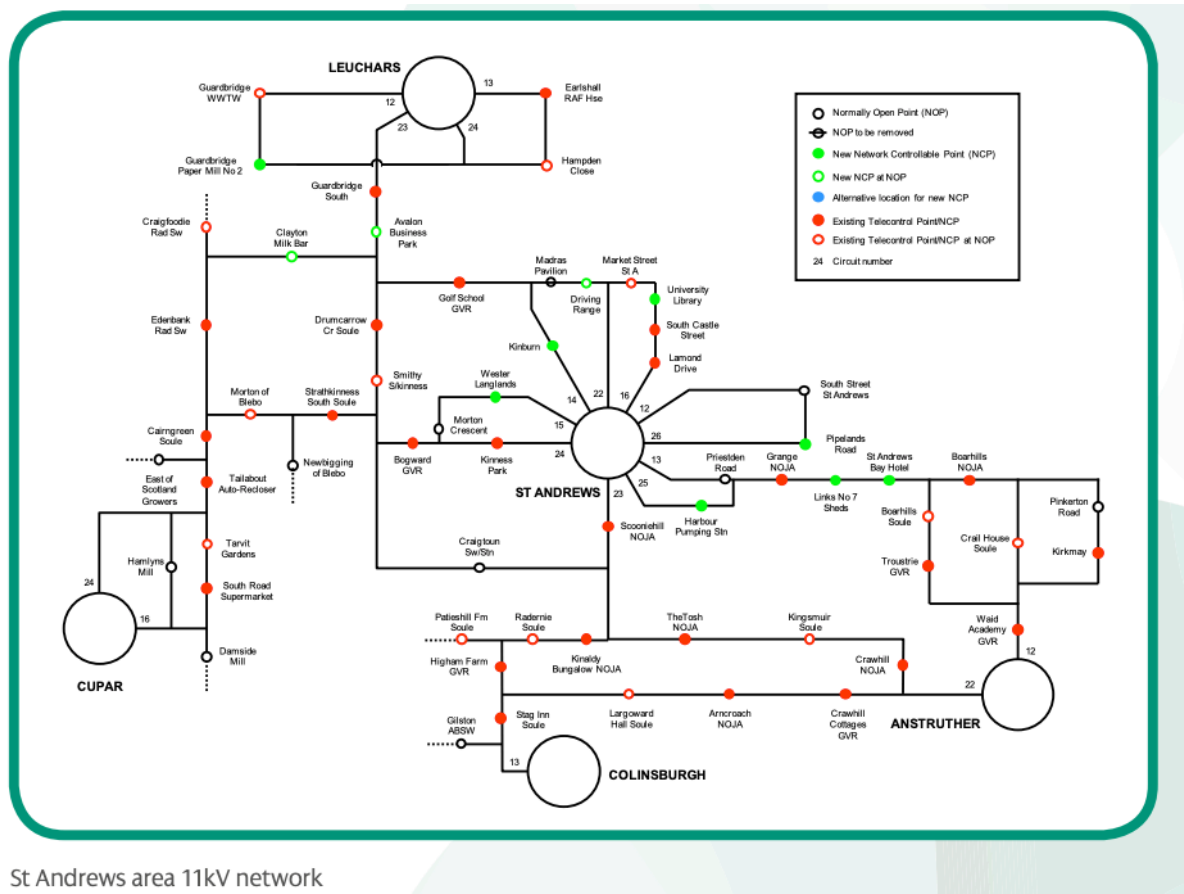
#### Further Information

App 0A Story GENESIS Centre (**Updated**)  
 App 0B Story Enterprise Ecosystem  
 App 0B Story Entrepreneurial Space in WBH  
 App 0C Eden Power  
 App 0C SPEN Internal Newsletter May2020 (**New**)  
 App 0D Company and Investment Monitor  
 App 0D Company & Investment Example Evidence  
 App 0E Covid 19



The sub-station will secure sufficient power capacity to facilitate growth and development at Eden Campus. It will also support our carbon reduction targets, and provide opportunities to feed in substantial levels of energy into the regional grid (essential to help us realise our ambitions around solar PV development), and assist in the establishment of an energy test and demonstration centre (the GENESIS Centre) which will have complex power requirements. The type and level of storage is under review at the present time as part of the separately funded solar PV project. The cost of battery storage has fallen consistently so that it is becoming a more affordable component of a business model. Designing testing and introducing new storage technologies are a significant part of the Genesis project.

## EDEN CAMPUS TAY CITIES DEAL



St Andrews area 11kV network

Craig Graham (Head of Central Planning & Design for Scottish Power Energy Networks) has addressed questions raised by the UK & Scottish Governments on review of our OBC Versions 1-4 as provided below.

## EDEN CAMPUS TAY CITIES DEAL

**SPEN Strategic Partner Craig Graham**  
**Head of Central Planning & Design**

“SP Energy Networks have been actively working to improve the security and quality of supply in North east Fife for many years. Our association with the University of St Andrews, supports both organisations aspirations to enable a decarbonised future. SP Energy networks believes that the approved technical solution we have developed with the University of St Andrews meets both the University’s needs, the needs of other customers and the wider community in the changing energy landscape. The asset platform we have designed will enhance not only the quality and security of electricity supplies in and around the Leuchars/Guardbridge area but will help secure power networks around the periphery of St Andrews, this optimised design will be part of our ongoing commitment to becoming a Distribution System Operator providing opening up a market of flexible, value adding energy related services to this important area. These services enabled by the provision of the new network will continue to generate value for customers, or pro-sumers for years to come as we seek to establish a more dynamic, flexible, energy system.

**Innovation Enabled Design**

Within the context of the energy system, the design allows for digital and fibre communications to allow full monitoring and supervisory control and data acquisition (SCADA) of the energy system this will allow real-time monitoring of the network associated with the site and the interconnecting network. This will be coupled with demand and generation forecasting, voltage monitoring, weather forecasting and predicted customer needs and drive control of the network to ensure technically and commercially optimised decision making. This is currently the preferred area of network where SPEN will establish a DSO control desk to monitor, manage and dispatch active network flexibility market participants.

**Innovation Industry Partners**

It is expected that this project will be used to unlock embedded technologies and projects already progressing within the St Andrews network area. These include Dynamic Thermal Rating, network monitoring and Ofgem supported project FUSION. As such suppliers and partners are likely to include consultants, suppliers of communications and data hardware and software as well as suppliers digital enabled main plant and protection systems. In addition, it is expected that companies progressing into energy-related services such as aggregators will become involved as the platform develops and increasing value is demonstrated.

**Linkages to other projects**

The link to project FUSION, accelerating renewable connections ARC is outlined briefly above. The PNDC performs a crucial role in taking modelled results and providing real-world simulation of dynamic actors and their interaction in a power grid as such, we expect that the impact of low-carbon technologies, energy storage systems, EV charging and heat pumps will be simulated and analysed within the PNDC and the results used to predict the effects on a power network and be used to inform the design of the substation and control systems.”

#### Investment in North East Fife.

There has been ongoing investment in SPD's power infrastructure in North East Fife in line with SPEN's asset management policies, asset risk analysis and consistent with the objectives of SPD's Investment Strategy and work programmes. However, the focus of that investment has been asset replacement and refurbishment. The network infrastructure has been managed to focus on performance and condition. However, the developing issue in recent years has been network capacity and increasingly security of supply. In order to meet changing demand and generation requirements in north east Fife the network requires to develop and be reconfigured with additional circuits, plant, secondary systems (protection and automation), and telecommunications equipment. In recent years the grid infrastructure, the Transmission network (>33kV) has been largely renewed. This same level of attention is now required at Distribution (<132kV). The "extensive work" required will present challenges, however, these are largely known and can be quantified. Project risks will be identified and a register of risks, including an assessment of likelihood and consequences forms part of our project management discipline and will be integral to the delivery of the power infrastructure project.

We have created an Appendix from information gathered from our strategic partner SP Energy Networks which can be found in the full business case, App OC Eden Power. This appendix summarises the following about the Eden Campus Smart Grid:

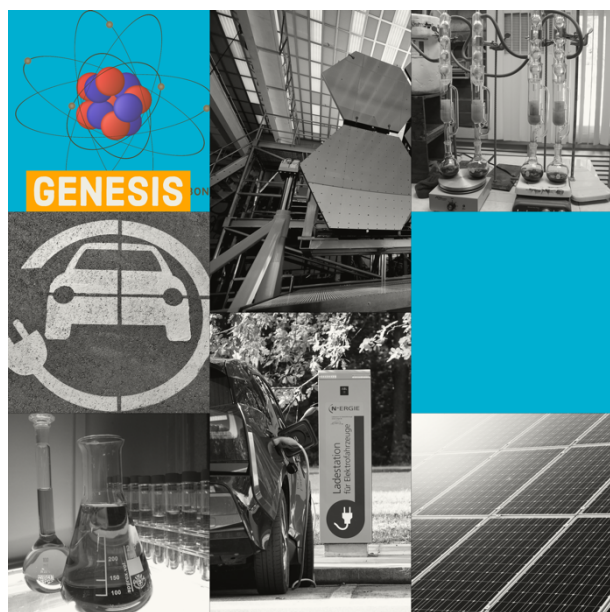
- SPEN & University of St Andrews
- NE Fife Infrastructure
- Smart Grid Concept
- Smart Grid Technology
- Eden Campus Smart Grid

SP Energy Networks have also used Eden Campus as a focused project on the drive to decarbonisation within their May 2020 internal newsletter. For more information see App OC SPEN Internal Newsletter May2020 ([New](#)). This excellent article is well worth reading as it provides information regarding their leading role in developing innovative ways to improve the security and quality of electricity supplies in the UK. This is of particular interest to North East Fife and the long-term partnership with the University of St Andrews and Eden Campus.

## EDEN CAMPUS TAY CITIES DEAL

**Project 2: The GENESIS Centre**

The **GEN**eration **Storage** Innovation and **Sustainability** Centre is a new facility for R&D activity in the storage and conversion of energy, see full business case, Appendix App 0A Story - GENESIS Centre. It will provide a space where companies can access University and industrial expertise, engage with other companies, build business-to-business collaborations, and develop and experimentally test new approaches to the development of low-carbon energy systems. These low-carbon systems would include energy based on:



1. New battery technologies, and their application in static power (e.g. Sodium-ion, a new Electrochemistry with a huge potential for Battery Energy Storage Systems);
2. The development of Hydrogen-based energy systems, and its use in storage and propulsion systems including land and marine;
3. New generations of fuel cells for static power and transport;
4. Synthetic Fuels from Electrolysis;
5. Ammonia production and its use in energy storage;
6. Hybrid fuel cell-battery systems for transport and mobility;

7. Overall energy system management.

The proposed Centre is therefore unique in a UK and Scottish context: there is no other centre which focuses specifically upon energy storage and conversion, and which uses some of the UK's top research in this area to create economic opportunities for companies in energy storage and its applications (including sustainable mobility).

Additionally, we are working closely with existing centres:

- We work closely with Strathclyde University on several projects, such as the new Hydrogen Accelerator. The newly established Hydrogen Accelerator (funded by Scottish Government via Transport Scotland) will base its core team at Eden Campus, acting as a knowledge hub of hydrogen-related projects across Scotland. We are aware of other hydrogen initiatives in the UK (e.g. Tees Valley, Glamorgan, H21 network) and continue to learn from them. However, the position of the Eden project is that a) it combines battery and hydrogen technologies, b) its collaboration with manufacturing activity at MSIP, and c) its uniqueness in Scotland.
- We have already made close links with Michelin Scotland Innovation Parc (MSIP) and agreed a working protocol so that the 2 facilities offer complementary services which are not in competition. The 2 facilities appear at joint events (e.g. <https://www.msipdundee.com/events/innovation-in-scotlands-energy-storage-industry/>) and we have submitted joint bids for UK government initiatives to work more closely together.
- The University also recognises the synergy offered by the network of Catapult Centres in particular, and will work closely with relevant Catapults - Energy Systems, Connected Places, High Value Manufacturing, Offshore Renewable Energy in particular - to see where collaboration can be effective.



## EDEN CAMPUS TAY CITIES DEAL

The needs case for GENESIS is based on a pipeline of at least 20 known companies with whom we are already working, and who have already expressed an interest in using the proposed facility for testing and scale-up. These companies are listed in full business case, Appendix A\_0 Genesis as well as the Company & Investment Monitor.

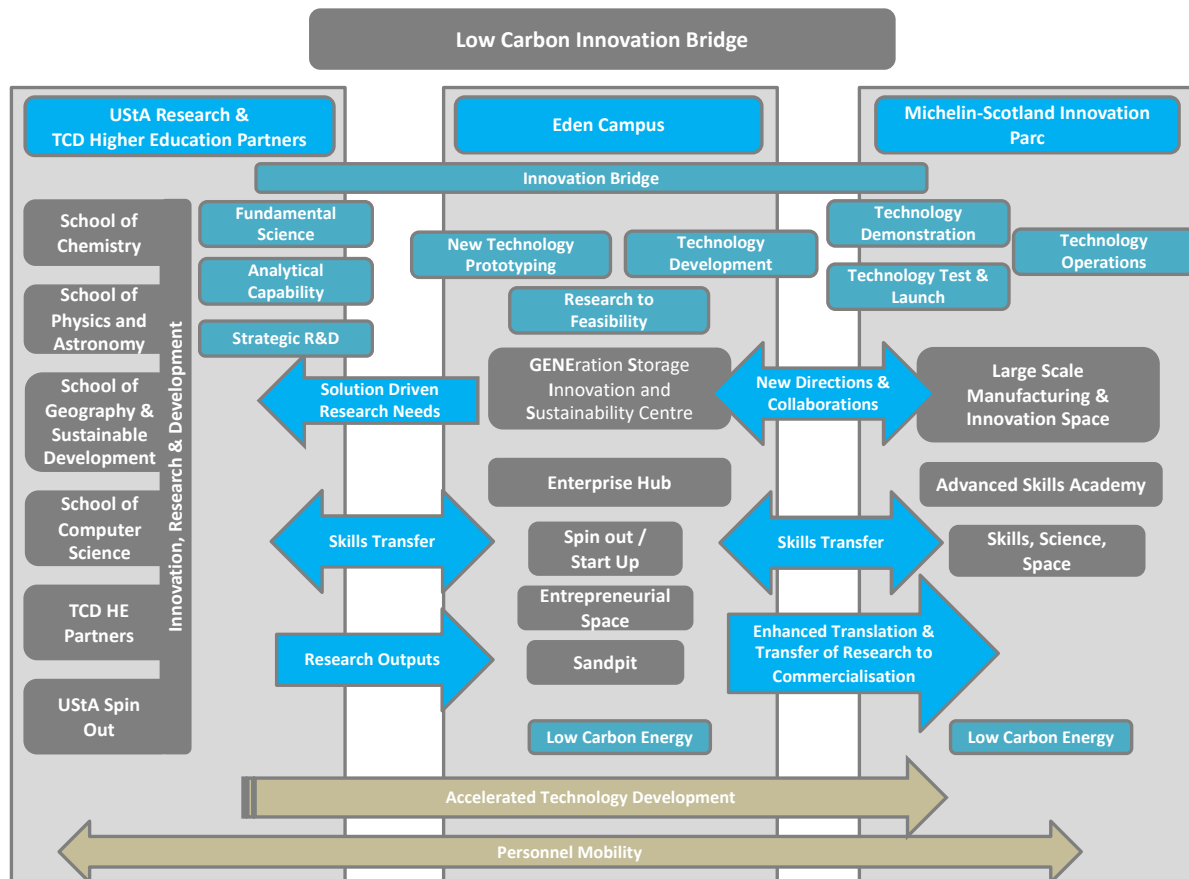
The Centre will be a business-facing facility. It represents the deployment of the University's interface between research and applied commercialisation in areas of energy conversion and storage. It will be a place where companies can access both equipment and knowledge – providing facilities to test products, on the one hand, while also providing a forum for engagement between companies and with the academics driving the extensive energy-related work in which the University is engaged.

In attracting private partners, interaction between private businesses will be facilitated and encouraged, on the principle that other companies are your potential collaborators, not your competitors. It will be designed in a way to grow a body of energy-related economic activity around Eden Campus, to act as a catalyst for wider economic growth in the Fife/Tay Cities.

In doing so, the Genesis facility will complement other innovation centres in Scotland which provide test and/or demonstration space for low-carbon technologies, particularly the National Manufacturing Institute Scotland (at Strathclyde), the Power Networks Distribution Centre (also at Strathclyde) and MSIP in Dundee. St Andrews already has contact with all these facilities, through involvement in the Energy Technology Partnership, and through links made with MSIP to ensure that the two facilities are complementary.

There is a strong synergy between what is proposed at MSIP and Eden Campus. University of St Andrews offers a strong academic base to complement the strong manufacturing offering at MSIP. The activities are complementary focusing on slightly different ranges in the technology readiness scale (TRL). This synergy is already apparent and we have signed an MOU to formalise this with an outline protocol agreed below to ensure synergy and cross-referral of companies. Illustrating the synergy, the largest activity currently proposed for Michelin relates to a company that works closely with St Andrews on R and D and this relationship has greatly improved the prospects of that company setting up in Dundee. A recent £12M grant led by St Andrews in the relevant area serves to further reinforce these prospects.

## EDEN CAMPUS TAY CITIES DEAL



The Genesis Centre will inevitably combine different kinds of space, to be used for different purposes. This will include a combination of:

1. Shared workshop space – the 'dirty' space where companies can test products in a 'plug and play' formations using shared equipment listed in Appendix 0A;
2. Lab space, for materials characterisation and analysis, research, desk prototyping etc.;
3. Co-working space: hot desks, shared environment, cafe area; a place to meet, interact and share ideas;
4. Meeting rooms, in a variety of sizes & configurations to facilitate collaboration and training potential.

A more detailed description of the Genesis facility is found in **Appendix 0A Story Genesis Centre**.



## EDEN CAMPUS TAY CITIES DEAL

## Project 3: Eden Enterprise Ecosystem

The University's Strategy has a strong emphasis on entrepreneurship:



“Entrepreneurial St Andrews will drive a culture shift in our University to strengthen our engagement with industry, business and policy makers, and increase our capacity for product, service and process innovation and value creation. We recognise that industry is increasingly setting the agenda for major funding priorities. Innovation (that is, using knowledge to do things differently) is a key differentiator, and the demand for specific skills is growing. The current scale and pace of technological advancement are already posing fundamental challenges to society. St Andrews will need a step change to engage fully to support innovation and deliver education and skills that are needed for inclusive economic growth”.

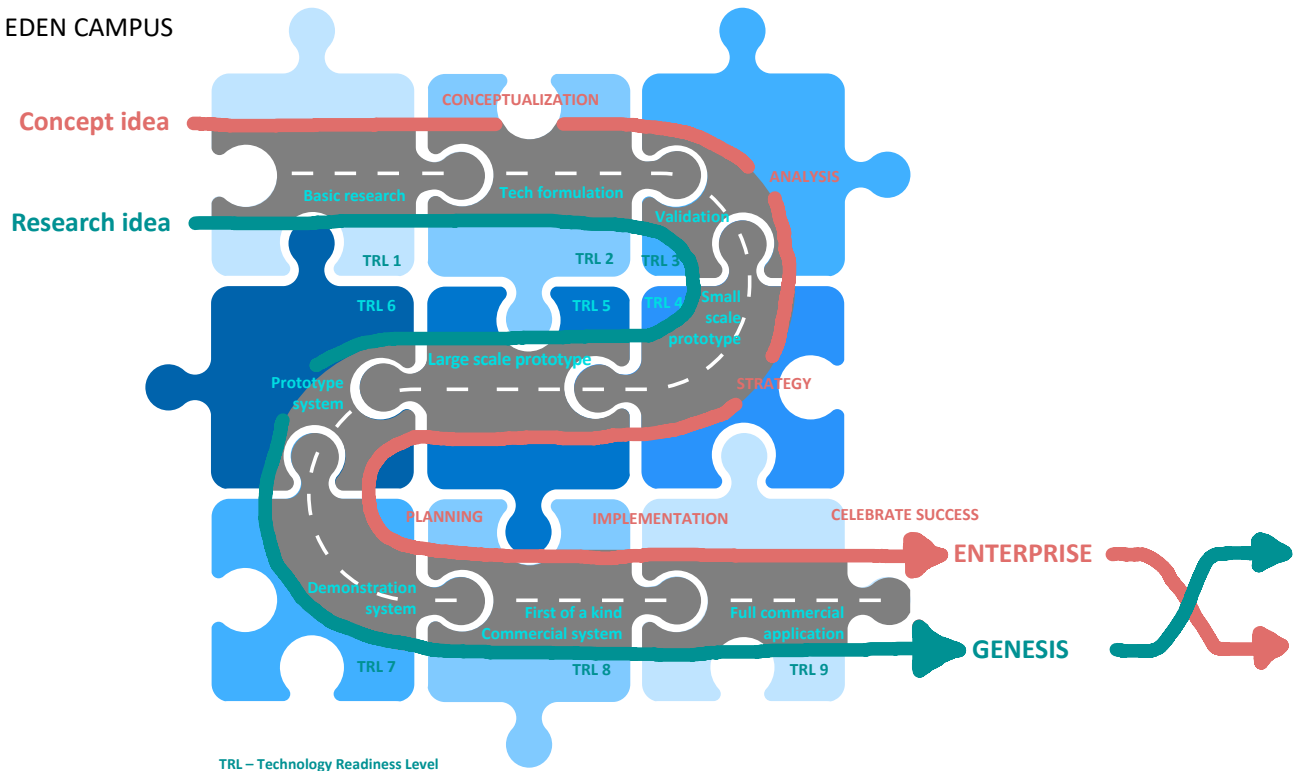
Eden Enterprise Ecosystem and Eden Campus more widely is key to this culture shift towards entrepreneurship. The Ecosystem will operate across a suite of buildings at Eden Campus from the joint venture (with Fife Council) Enterprise Centre supporting the local community and businesses, through to an Entrepreneurship Centre targeting spin-outs from staff, students, local residents. In addition to these flagship projects, the Ecosystem will also offer room for expansion for successful businesses, as well as a combined incubator and accelerator facility to support the start-up and growth of new and emerging companies, **see Full Business Case, Appendix 0B - Story Eden Enterprise Ecosystem.**

We will be looking to develop innovative products and methods for clean energy generation, storage and utilisation alongside an Enterprise Ecosystem to support businesses through the early stages leading onto a base for further growth and scale-up. This will be combined with support for an electrical power upgrade for North East Fife leading to the creation of a smart grid for the area. All three projects, described individually above, will inevitably and positively be intertwined. R&D projects within Genesis, for example, once they achieve proof of concept, will be afforded support from the teams within the Eden Enterprise Ecosystem. All research and concept ideas will be captured by either the Genesis or Enterprise Ecosystem innovation roadmap journey described below.

## EDEN CAMPUS TAY CITIES DEAL

## INNOVATION ROADMAP

EDEN CAMPUS



## Current arrangements

There has been a lack of investment in the electrical grid in North East Fife for many decades. There is now an opportunity, with the development of clean energy generation and storage capability at Eden Campus, to deliver investment in this base infrastructure and, in so doing, lead towards a smart grid for the area. At Eden Campus we will demonstrate the benefits of integrating smart grid technology alongside clean generation and storage to meet growing demand.

At a global level, the challenge of decarbonising society is bigger than any single company, sector or even country. The University currently undertakes research into a variety of Carbon Capture, Utilisation and Storage activities (CCUS), but no facility currently exists as proposed. The concept lies between basic research and deployment/demonstration activities. It is directed at bringing forward the next generation of technologies rather than demonstrating technologies that would be market ready, if sufficient scale could be achieved.

By creating an environment that encourages businesses to come together to collaborate and combine their knowledge and ideas alongside academia we will bridge the boundaries of office, lab, workshop and industrial space. Combined with connectivity to a grid to fully utilise power generation and storage capabilities this will be a significant step forward that will create opportunities to develop new products or combine the deployment of existing technologies in novel ways.

There are no facilities in North East Fife that integrate industrial space with technology space and offices. St Andrews, as a successful town, has no space to grow jobs beyond academia and tourism. Entrepreneurs and their businesses simply do not look to North East Fife as a long-term business location. The University's current New Technology Centre (at North Haugh) is at capacity but does not have space to expand or offer expansion opportunities to its tenants. This is one reason why Eden Campus represents such a good opportunity for the University to support the local economy and redress the balance of job losses incurred in 2008 when the papermill closed.

In its heyday, the papermill in Guardbridge employed over 600 people, more than the current day time population of the village. A thriving Eden Campus will attract similar, if not greater, numbers of workers to the campus daily.

## EDEN CAMPUS TAY CITIES DEAL

In planning the redevelopment of Eden Campus, a masterplan was produced in close consultation with and for approval by the local authority. The Development Framework received planning approval on 17 March 2017. It sets out the University's vision for Eden Campus. The University will exceed car parking space provision with 303 in total in this phase including 20 accessible parking bays and a further 12 EV charging bays. Programmes are in hand to meet all these conditions.

The University has updated its own travel plan to inform movements of staff and students in and around NE Fife. Reinforcing initiatives such as car sharing, cycling and walking are all part of the travel plan. In addition, the University is working closely with public transport providers. Stagecoach, for example, has agreed to improve the frequency of the main bus services between Dundee and St Andrews from a 10-minute frequency to 7.5-minute intervals. Stagecoach and the University are also in advanced discussions for the introduction of smart card passes for all staff to further encourage the use of public transport. Other bus services also operate on the Eden Campus route meaning that passengers will rarely wait for more than 5 minutes for a bus in either direction. The local railway station, Leuchars is on the main line from Aberdeen to London. It is only a 12-minute walk from Eden Campus. Furthermore, the University has plans to run an electric vehicle shuttle service between the station, Eden Campus and St Andrews. The transport infrastructure copes well with The Open and other major golfing events. In 2000, St Andrews hosted 239,000 visitors to The Open (a tournament record). In 2015, the numbers were very similar when The Open hosted 237,000 visitors.

Housing stock in the local community is also set to grow quite significantly in the next 3 years with major projects in Guardbridge (location of Eden Campus) for 350 homes (Persimmons) and 4 miles away, in St Andrews, a long term development of 900 homes, a secondary school, care home, shops and other amenities at St Andrews West.

Of course, the energy network itself to service this growth is, in part, a function of this business plan. The region of NE Fife has not enjoyed an upgrade in the supply of electricity for a generation and the region will now benefit as part of the wider community benefits from City Deal.

### Why us?

The University of St Andrews is a small renowned global institution. We successfully and repeatedly deliver an annual capital programme of approximately £20m on time and within budget. We also work with commercial partners in delivering other business assets to support the University and the economy of North East Fife and Scotland.

We are an established facilitator of engagement between companies bringing academic discovery and innovation to assist in the advancement of technologies.

As a University, we are working towards a long-term goal of becoming carbon neutral for our energy. The vision for Eden Campus is to lead this journey and we started with investment in a Biomass boiler and district heating network to provide heat to much of the University. In 2019, the University is continuing to drive down carbon by investing in both ground and roof-top solar generation at Eden Campus while embarking on a major upgrade of buildings and plant in St Andrews. This will be augmented by the development of energy generation and storage capability described above.

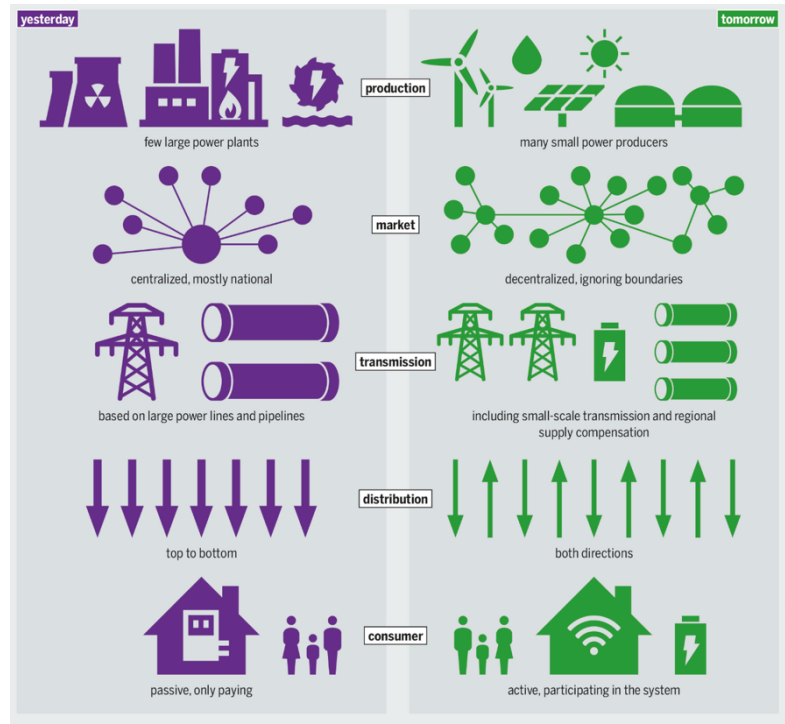
In addition, the University is exploring other forms of power generation specifically at Eden Campus such as small-scale wind turbines as well as geothermal generation (subject of LCITP-funded<sup>1</sup> feasibility study in 2017) and, most recently, the production of cheap long-lasting sodium ion batteries. The University has also planning permission for a significant wind farm external to the Campus.

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<sup>1</sup> Low Carbon Infrastructure Transition Programme

## EDEN CAMPUS TAY CITIES DEAL

These initiatives will support the creation of a smart grid system, which will combine smart technology, demand management, storage and multiple energy sources to create a replicable and sustainable grid for a largely rural area. This approach supports the [Scottish Governments Vision for Electricity and Gas Networks to 2030](#). A diagram showing what a 'smart grid' looks like is shown below.



These investments facilitated by TCD funding alongside that already invested by the University fit into a wider strategy for a whole system approach with decarbonisation being central to a low carbon future for UK & Scotland. Eden Campus is a key enabler to supporting this strategy.

As a global university, embedded for over 6 centuries in this area, we can work locally while drawing interest from international companies and other universities keen to engage with us in pursuit of new innovative opportunities. At Eden Campus we aim to create an entrepreneurial environment that actively promotes collaboration through which these relationships will flourish and, in so doing, help tackle climate change.

### Outcomes

Our goal is to support companies in the development of new products and services which can be deployed across the world. This will lead to a proposed increase in GVA of over £38m, with the creation of over 600 jobs at Eden Campus rising to 800 jobs over a 25-year period. There are currently over 150 people working at Eden Campus.

While we are one of the world's ancient universities, we strive to be among the most modern and innovative. We will do this in ways which respect people and our environment.

### Progress in 2019-2020

The Eden Campus Programme Board submitted a first-year work programme to the Tay Cities PMO of £4.231m. Fulfilling the programme of work was subject to confirmation of the University's FBC by 31 December 2019, otherwise no new work would be commissioned. However, the University's

## EDEN CAMPUS TAY CITIES DEAL

Programme Board, at the November board meeting, took the decision to continue work at Eden Campus building upon preparatory work undertaken in previous years. The Board understands that this work is proceeding 'at risk' without formal government approvals in place. The decision was based upon a combination of the positive feedback on the University's OBC with the need to make ready buildings for occupancy. Maintaining momentum to the build programme and interest from commercial partners were critical success factors. The University prepared a work programme to drive forward the commercial zones on Campus of £4.231m for landscaping, roads, lighting, seawall repairs and the start of a building refurbishment programme. On a typical day, there are over 150 working currently at Eden Campus. In addition, the University's administrative hub, to be called Walter Bower House, will be operational in the winter of 2020 bringing up to 450 staff to the Campus (in normal circumstances) on a rotational basis while the social distancing at work guidelines remain in place.

To date, one project to repair and strengthen the seawall boundary to the Campus has been completed. A second major project, to create roads, car parks, landscaped areas and lighting regimes was within six weeks of completion at the time of lockdown caused by the coronavirus. This project has resumed and will be concluded in September 2020. A phased programme to remove asbestos from a series of buildings commenced on 11 November 2019. This phase was completed and certified clear before the lockdown. One zone of buildings containing asbestos remain to be cleared and this is programmed as a Year 2 activity in 2021/22. One final project, to complete a schedule of works on a 472 m<sup>2</sup> building, had been held back pending formal approvals from both governments. Work to this building has commenced having been approved at a Programme Board meeting in November on the same basis as above, namely balancing the concern of continuing at risk with the need to maintain momentum across the whole Campus and honouring our agreement with the PMO to drive forward £4.231m investment at the Campus. Roof repairs and replacements began in January 2020 (these form part of Year 1 activity) and were on hold due to the closure of the Campus. The work has resumed, and rooftops will be completed by October 2020. Architects are currently working on designs for the fit out of the first buildings and plans for buildings 1-9 – all of historic importance to the Campus.

New procurement exercises for enabling works to buildings and district heating extensions have all been concluded and suspended. Procurement for some Year 2 activities had also been concluded and had to be paused. Procurement has also been concluded for a ground-mounted solar PV project that is not part of the TCD programme but is part of the wider development of a green Campus. Many of the projects at Eden Campus are now "shovel ready".

The University has secured new revenue funding streams, highlighted in the Key Changes section immediately below, and has also embarked on a campaign to attract mentors and investors to support entrepreneurship at Eden Campus. The secured revenue streams are from the Advancing Manufacturing Challenge Fund to provide funding over a three-year period for technical resources and equipment to be housed within the Genesis Centre. This initiative is specifically aimed at, and will benefit, at least 20 SME's working with the University. The second initiative, is a small grant to undertake a feasibility study that will analyse energy capacity requirements at Eden Campus, carry out an options appraisal and present scenarios to maximise the use of renewables and thereby reduce carbon emissions. This is an early step towards the creation of a carbon zero Campus. Across the wider University, a new Environmental Sustainability Board has been formed under the leadership of the Principal and Professor Sir Ian Boyd. This Board replaces the University's Sustainability Working Group and will focus on meeting government emission targets. Eden Campus is seen as a practical manifestation of the Board's work where academics and industry partners can contribute to the technological advances that will be required to move towards carbon zero in the

## EDEN CAMPUS TAY CITIES DEAL

timeframe that has been established by both governments. It should be noted that the University's award-winning biomass district heating network has resulted in a 20% reduction in carbon emissions per year. The new solar PV project will further reduce emissions by approximately 5%.

Interest in the activities of Eden Campus continues to spread amongst private companies and public stakeholders. (For detailed information regarding the interest generated by Eden Campus over the last few years please refer to new appendices, in the full business case, App OD Company & Investment Monitor and App OD Company & Investment Example Evidence.) Transport Scotland have funded what is initially a 3-year Scotland-wide Hydrogen Accelerator programme to drive the transition to a hydrogen economy. The Accelerator (funded by Scottish Government via Transport Scotland) will base its core team at Eden Campus, acting as a knowledge hub for hydrogen-related projects across Scotland.

During 2019, we have received multiple expressions of interest from private companies looking to locate their activities at Eden Campus. We have been approached by companies working in algae production, battery production, and sustainable agriculture. Recently we received an approach from an Indian Company looking to train research engineers in collaboration with the University. These explorations indicate the broad international profile which the Campus is already building.

### Key Changes in Eden Campus

The key changes since the submission of the SOC are that:

- COVID 19 – The University has been affected, as others, by the Covid 19 pandemic. We have reviewed the impact, to the operations and development of Eden Campus and have submitted a response as requested to the PMO. We have attached this response in our full business case as an appendix, App OE Covid 19.
- New funding secured from: Scottish Enterprise - Advancing Manufacturing Challenge Fund (£1.18m), Transport Scotland - Hydrogen Accelerator (£900k), Local Energy Scotland – CARES fund (£44k) and Fife Council - Vacant & Derelict Land Fund (£531k).
- Scottish Power Energy Networks (SPEN) is developing a flexible power upgrade project based around a dedicated sub-station on the Eden Campus site, this will bring benefits to the wider community;
- A joint venture development agreement with Fife Council to support the Enterprise Ecosystem at Eden Campus is being developed;
- Infrastructure work has already proceeded (at risk) and has been completed ahead of full deal agreement and approval of Eden Campus FBC;
- The GENESIS Centre model has been tested with more than 30 companies working in the energy storage sector;
- A significant increase in corporate interest in engaging with the site, to the extent that some companies have relocated elsewhere rather than wait for the developments at Eden Campus to be realised, whilst new interest from other companies is expressed regularly;
- A revision of the Marine Simulator proposals has been approved, to focus on a smaller demonstrator-scale 'stretch dome' facility. This is not included in this business case as it is subject to a separate business case;
- The wider offering on the Eden Campus site will include a significant investment in Solar PV (funded by SFC with private sector match) which increases the flexibility and carbon benefits of the power upgrade and energy centre.
- The University has entered into a partnership arrangement with Michelin Scotland Innovation Parc and signed an MOU in July 2020.

## EDEN CAMPUS TAY CITIES DEAL

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## EDEN CAMPUS TAY CITIES DEAL

## 2. EXECUTIVE SUMMARY

## 2.1 Introduction

References to tables and appendices below have not been edited from this summary to assist readers of the Full Business Case. Included below, information of initial 'ask' and value awarded in Heads of Terms.

TCD £	CAPITAL (£'000)	REVENUE (£'000)
TAY CITY DEAL ASK	30,500	
VALUE AWARDED IN HOT	26,500	

TCD £	CAPITAL (£'000)	REVENUE (£'000)
TAY CITY DEAL LEVERAGE IN SOC	75,000	
TAY CITY DEAL LEVERAGE IN FBC	88,000	

OUTPUT / BENEFITS	TARGET
INCREASE IN GVA	£38m
JOBS CREATED	659
TONNES OF CO2 SAVED	71,306

*Note: full output details are in Appendix App 4.5.2 Table7 Summary of Outcomes & Targets. The figures shown above are for the 15-year life of Tay Cities Deal and have been calculated by Biggar Economics.*



## 2.2 Strategic Case

### 2.2.1 The strategic context

The developments at Eden Campus have been planned in line with a nested series of national, regional and local strategies, including:

- The UK Industrial strategy
- Scottish Government National outcomes
- Scotland's Economic Strategy
- Scottish Energy Strategy
- Fife's Economic Strategy 2017-2027
- University of St Andrews Strategy 2018-2023

The wider context of the development is one in which economic growth is shifting towards innovative, higher-value and knowledge-intensive sectors, and where elements of the University's expertise can support the growth of local SMEs.

At the same time, external factors – such as the rapid growth of offshore renewable energy – create significant economic opportunities which can be realised at Eden Campus in the next 5-10 years.

### 2.2.2 The case for change

In the light of these factors, the overall investment objective for the Eden Campus development is: "To give a brownfield site new purpose with a combination of industry and academic-led innovative technologies which contribute to national and international ambitions for carbon reduction, while simultaneously driving employment, training and apprenticeships".

In order to deliver this investment objective, the University has set out three sub-objectives to clearly articulate the ambition of the site which are stated below. These in turn give rise to the three projects developed in more detail in this FBC, that is:

1. To create conditions for a modal shift in North East Fife energy systems, through the introduction of smart sustainable grid systems ensuring robust provision and resilience of electricity, supplemented by renewable supplies. In doing so, to support greater electrical flexibility, security of communications and provision for electric vehicles, alternate energy/heat sources and future technical innovation.
2. To develop the Genesis Centre for energy storage and conversion, where companies can access University and Industrial expertise, build business-to-business collaborations, and develop innovative new approaches to the development of low-carbon energy systems.
3. To develop an ecosystem for enterprise to support the start-up and growth of new and emerging companies.

## EDEN CAMPUS TAY CITIES DEAL

**2.3 Economic Case****2.3.1 Introduction**

The Economic case considers the economic impact of the proposed projects. The Logic models within the Economic Case were presented within the previous OBC document. The full Cost Benefit Analysis (CBA) model for the three projects has been included within the Appendices.

**2.3.1 Power Upgrade Summary**

Overall, as can be seen in Table 4.2 presented in the Economic Case, that the power upgrade project estimates that:

- the net cost of the Power Upgrade would be -£2.6 million;
- the emissions reduced would be equivalent to 71,300 tonnes of CO<sub>2</sub>; and
- the non-cash releasing benefits would be £73.7 million GVA and 1,255 job years.

**2.3.2 GENESIS Summary**

Overall, as can be seen in Table 4.3 presented in the Economic Case, that the GENESIS project estimates that:

- the net benefit to the University of the GENESIS Centre would be £72.6 million;
- the non-cash releasing benefits would be £616.7 million GVA and 11,210 job years.

**2.3.3 Enterprise Ecosystem Summary**

Overall, as can be seen in Table 4.4 presented in the Economic Case, that the Enterprise Ecosystem project estimates that:

- the net cost of the Eden Enterprise Ecosystem would be -£11.6 million;
- the non-cash releasing benefits would be £233.5 million GVA and 3,557 job years.

**2.4 Commercial Case****2.4.1 Procurement strategy**

Procurement of works and services will be conducted in full compliance with the University's procurement strategy and procedures and in compliance with the provisions of EU directives and Scottish legislation. Over the last few years the University has undertaken significant procurement exercises in relation to infrastructure, new build, & refurbishment projects and can clearly demonstrate we are a trusted deliver vehicle for public funded projects.

**2.4.2 Required services**

The required contracting services for the three projects will be captured within Contract Notices following the University procurement processes. These will be developed dependent on each project timeline and specification.

**2.4.3 *Potential for risk transfer and potential payment mechanisms***

In the delivery of capital projects, risk management is determined by the complexity and nature of the project scope and design. The University has clear procedures on its procurement & project management processes to ensure the right approach to procurement is selected, which both ensure project risks, which impact time, cost and quality, are kept to a minimum.

## EDEN CAMPUS TAY CITIES DEAL

**2.5 Financial Case****2.5.1 Financial expenditure**

Below is a summary of all project expenditure (TCD and other sources).

	TOTAL	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
<b>Expenditure Profile</b>								
<b>Capital exclusive of vat</b>	54,299,176	4,283,256	10,542,553	9,232,023	17,291,840	263,302	6,278,382	6,407,820
<b>Capital vat</b>	7,455,529	825,130	1,998,198	1,105,903	1,098,333	0	1,201,963	1,226,002
<b>Revenue excl of vat</b>	-	-	-	-	-	-	-	-
<b>Revenue vat</b>	-	-	-	-	-	-	-	-
<b>Total</b>	<b>61,754,705</b>	<b>5,108,387</b>	<b>12,540,750</b>	<b>10,337,926</b>	<b>18,390,173</b>	<b>263,302</b>	<b>7,480,345</b>	<b>7,633,822</b>

**2.5.2 Overall affordability and balance sheet treatment**

The net cashflow for the capital expenditure is £0 per year i.e. the capital expenditure is fully funded. Beyond the construction period, the financial model projects that the programme will have a net operating profit. As detailed in Table 6.5.1 of the full business case (section 6.5), by Year 25, the programme is projected to have a net operating profit of £1.9 million.

**2.6 Management case****2.6.1 Project management arrangements**

The University has well-established governance procedures. For the purposes of the delivery of Tay Cities Deal, a small programme team has been assembled. The team is supported and reports to a Programme Board the membership of which is set out in 7.3.1 of the full business case.

**2.6.2 Benefits realisation and risk management**

Benefits realisation was a focus of stakeholder workshops the detail of which is captured in section 7.6. Risk management within Eden Campus will follow the Eden Campus Risk Management Protocol (see App 7.7 in the full business case), which sets out the principals to identify and manage risk through a structured approach that focuses management attention on early identification, effective risk mitigation and stringent control informing recommendations for risk provision and contingency allocation.

**2.6.3 Post project evaluation arrangements**

At project completion the projects will be evaluated to measure the benefits realised against those expected as outlined in the Business Case, culminating in a report to the individual Project Boards, Eden Campus Programme Board and Tay Cities Joint Committee, on the achievements of the project, as well as lessons learned for future projects.

**2.7 Recommendation**

Following a detailed appraisal of all options using the five-case methodology, the preferred options emerging for each of the elements of the project were:

- Power Upgrade – Option 4 (innovation-enabled primary substation);
- GENESIS Centre – Option 4 (test and demonstration space, lab space and co-working space);
- Eden Enterprise Ecosystem – Option 4 (suite of buildings with integrated business support activities).