Energising Communities: Nottingham's Energy Revolution

18th October 2018

'Energy Projects Benefiting Communities'

Nottingham City Council | Energy Services

Wayne Bexton

Head of Energy Services

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Nottingham City Council

Energy Services

- Renewable energy
- Smart technology & low carbon energy system
- Energy efficiency investment | Invest to save
- Energy assessments and compliance



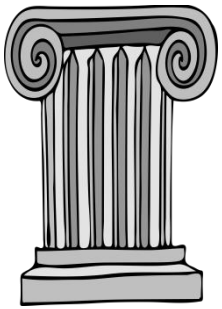




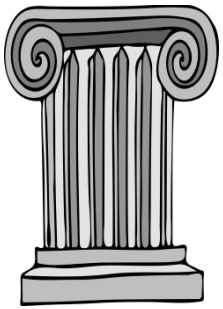
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“Four Pillars” NCC Energy Services

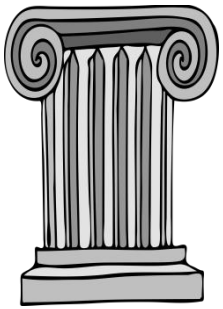
Product & Service



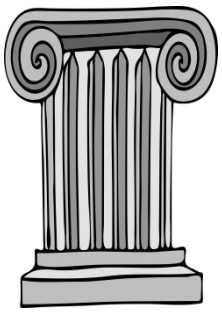
People & Team



The NCC Bridge



True Partners

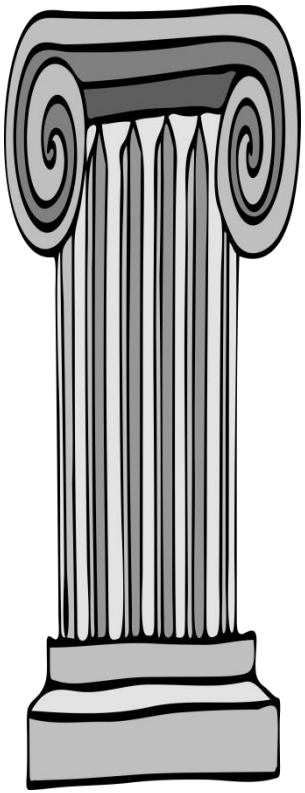


Unity is Strength

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Products & Service

Pillar 1















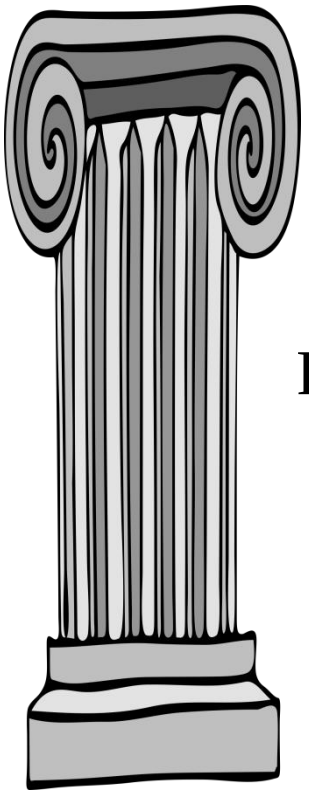


Strength & Depth

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People & Team

Pillar 2



Public/ Community

Strategic

Innovation



Policy

Private

Delivery

International

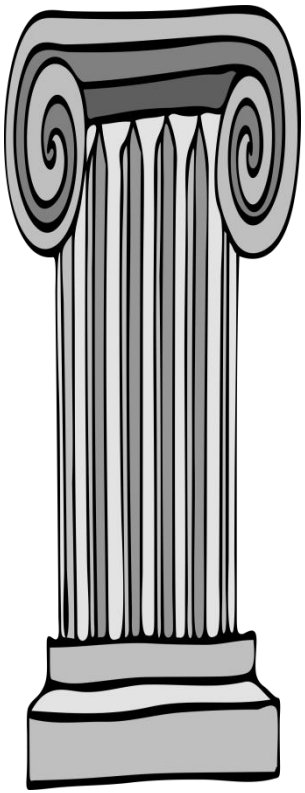
Commercial

A Perfect Balance...

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The NCC Bridge

Pillar 3



Public





Private



Grants

Matched Funds

Pioneer

Test Facilities

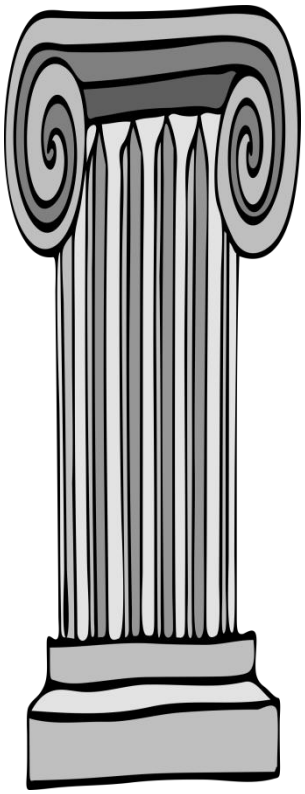
ROI

Incubator

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True Partners

Pillar 4



A Theme Develops...



Public

Private

Scale

Tech

Society

Focus

Large Scale “Robust” Returns

...Spark The Energy Revolution

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Domestic Solar PV

Case Study: 001

- 4000 NCH Properties across the City.
- Free Energy to tenant – tackling fuel poverty.
- 6000 commitment by 2019.
- 5% return for NCC up until Jan 2016.
- Forward programme; PPA/New Build

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Harvey Hadden Sport Village

Case Study: 002

Solar PV

- Total kWp: 67
- Number of panels: 448
- Area: 400 m²
- Estimated generation: 51,000 kWh
- Carbon savings (tonnes): 29
- Percentage reduction in imported electricity: up to 30%



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Ken Martin Leisure Centre

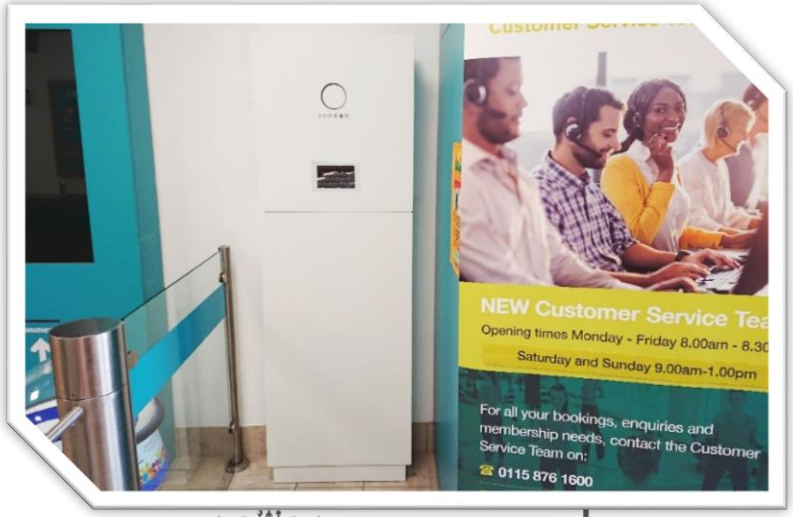
Case Study: 003

Solar PV & Battery Storage

- Total kWp: 88.5
- Number of panels: 354
- Area: 400 m² coverage: 520
- Estimated generation: 710,000 kWh
- Carbon savings (tonnes): 376
- Percentage reduction in imported electricity: up to 35%

- Total capacity: 8kWh
- Offsets standard grid prices by charging up in the day and discharging during dark hours
- Provides power for LED lighting and other amenities
- Live monitoring of battery performance and status
- Modular set up, meaning the system is futureproof as you can add more cells when required





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Theatre Royal

Case Study: 004
Salix Lighting

- 724 LED's installed, illuminating the atrium with low cost lighting and cooler colours meaning the light is less harsh
- Annual savings: £6,800
- Lifetime savings: £88,000



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Djanogly Leisure Centre

Case Study: 005

Salix Lighting

- LEDs installed, 24 LEDs fitted to illuminate the pool area and a further 273 LEDs installed as part of a separate project; giving affordable, low energy use lighting to the whole complex
- Project cost: £36,009
- Annual savings: £8,020.80
- Annual carbon savings (tonnes): 33.2



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Byron House Fuel Cell Project

Case Study: 006

DEFRA Fuel Cell Project

- Annual generation (heat and power): 20,000kWh
- Annual carbon savings (tonnes): 5.7
- Decreases carbon emissions
- New innovative technology
- Funded by DEFRA (Department for Environment, Food and Rural Affairs)





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Considerations & Questions?

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