



PIRI Development: Story Map

November 2022

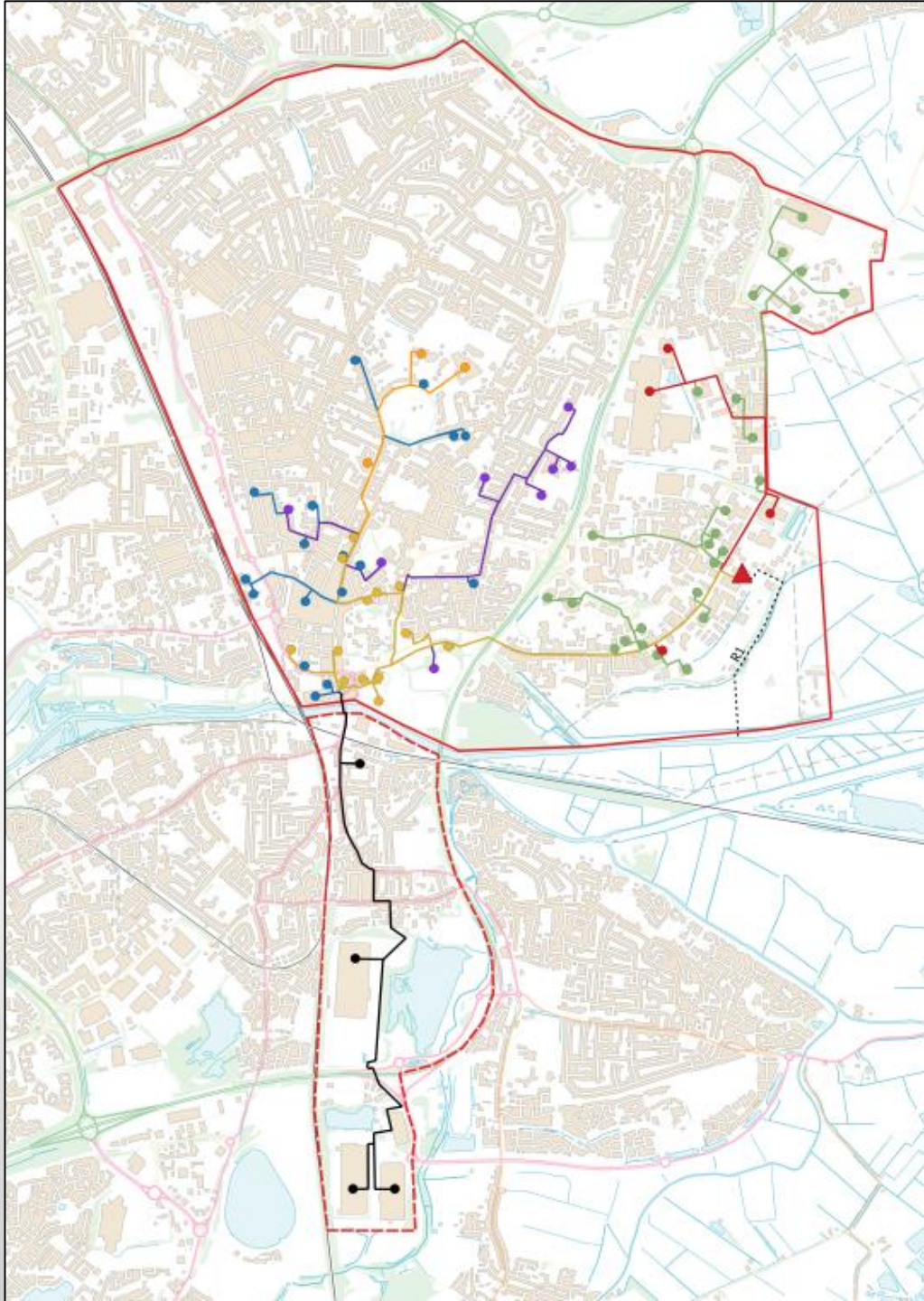









elementenergy



smarter
grid solutions





	Battery storage
	Solar PV
	Public & commercial buildings
	Building heat demand
	Network infrastructure
	Electric vehicle charge points
	Electric vehicles



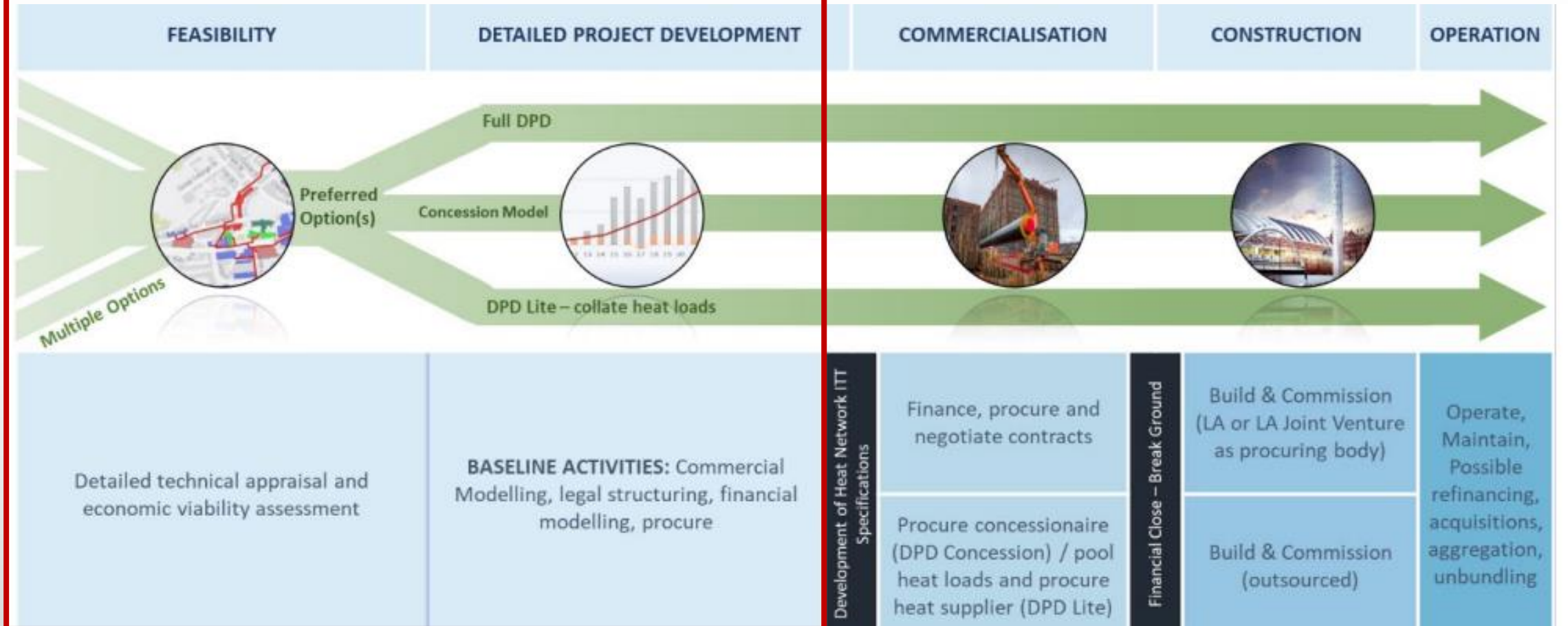


Overview of the Evolution of PIRI



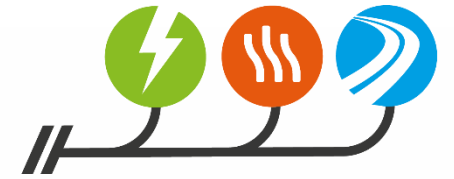
PIRI scheme development: completed to date

PIRI scheme development: next steps





PIRI Design Process



Identify Possibilities

- Low Carbon energy sources
 - PERF, River Nene, solar PV
- Network customers
 - Council buildings
 - Local industries
 - Electric vehicle fleets

2020



Engagement

- Explain PIRI to potential users
- Project heat demand from energy use data
- Scope electricity demand

2020/21



Route Scoping

- Determine key project deliverables
- Formulate potential network routes
- Model energy flows

2021



Route Selection

- Align with Key Deliverables
- Technical feasibility
- Compare Financial metrics
- Assess carbon savings

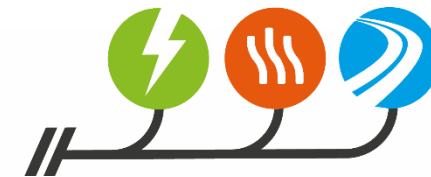
2021/22



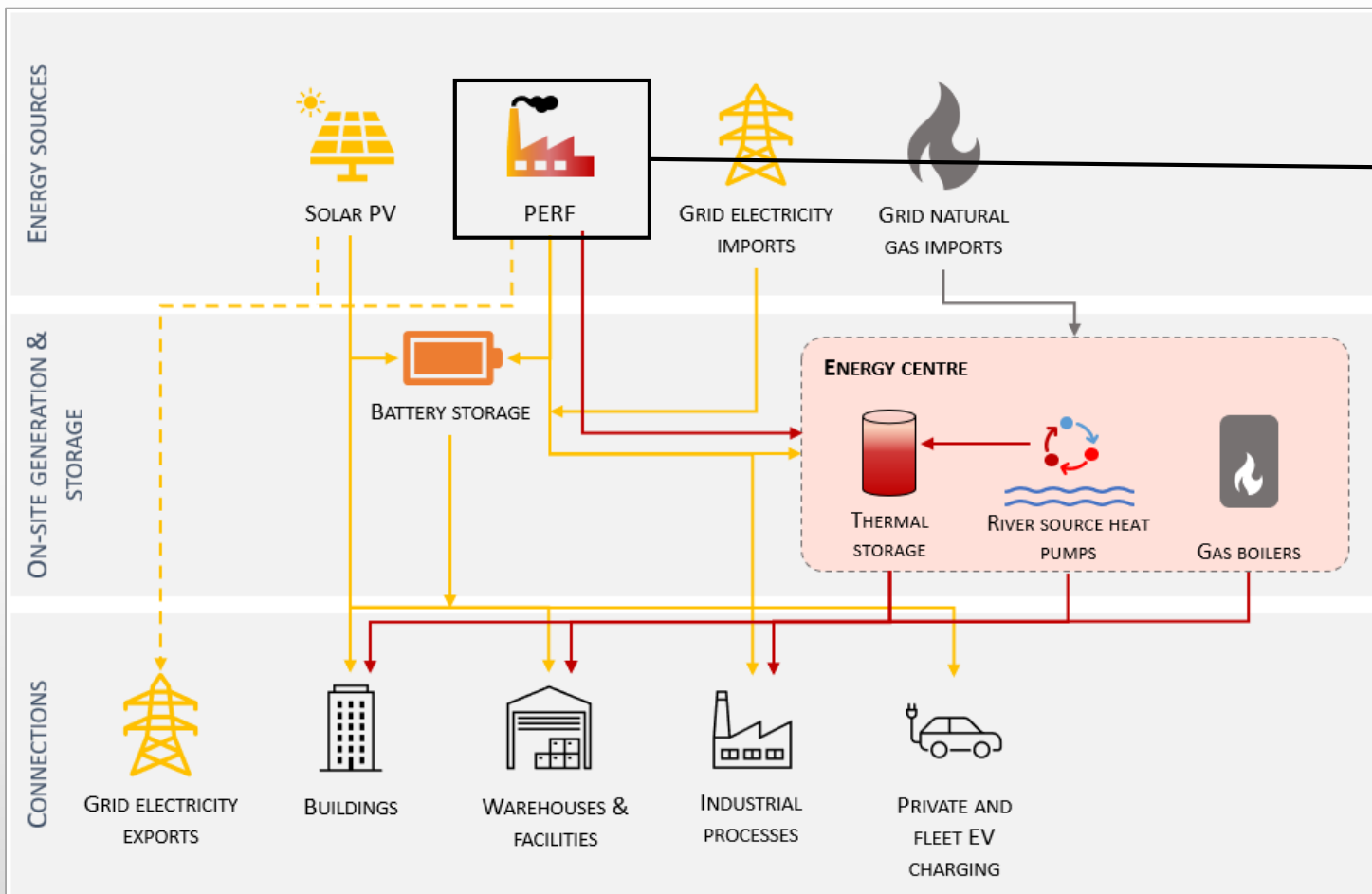
Final Design

- Full technical specification
- Detailed cost and revenue modelling
- Sensitivity testing
- Business case development

2022



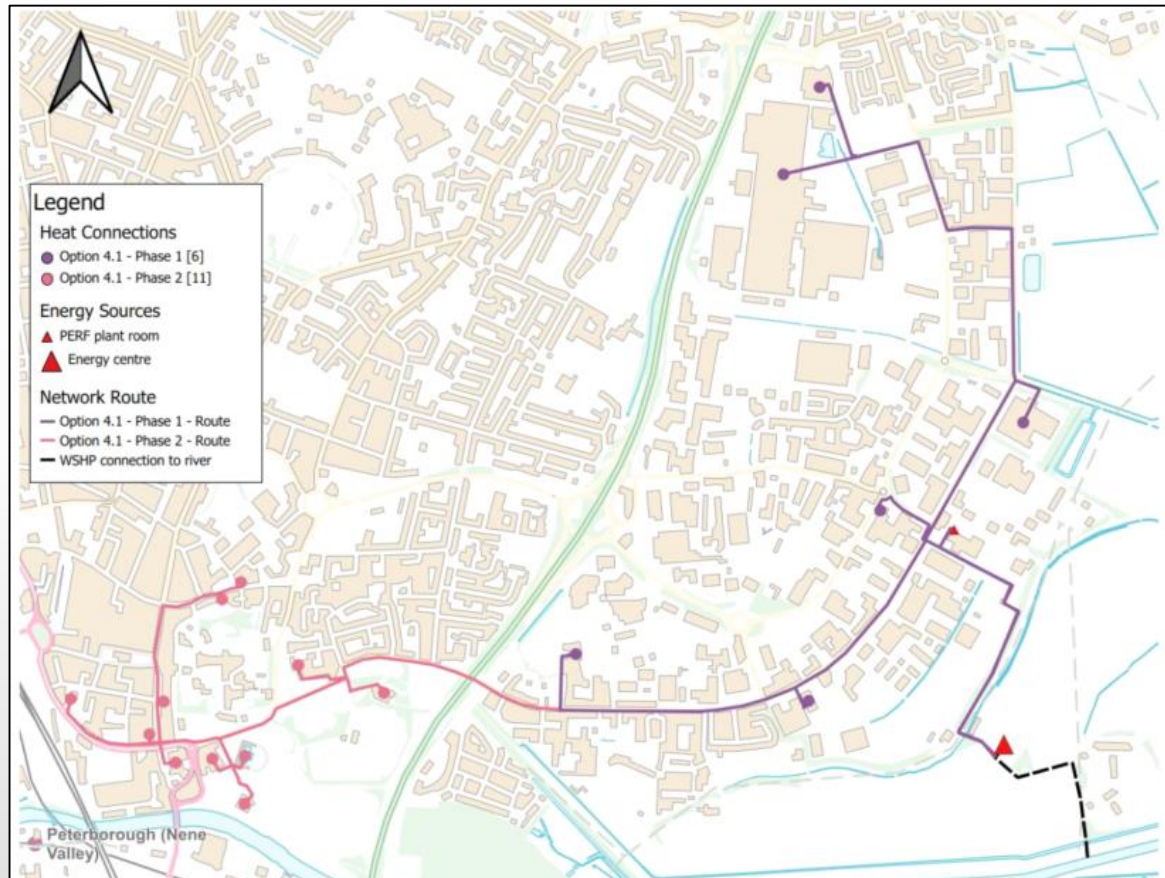
PIRI Scheme Overview



- The Peterborough Energy Recovery Facility (PERF) was built 2015
- Owned by Peterborough City Council and operated through a joint venture with Viridor
- The plant generates 7MW of electricity
- Designed with heat off-take capability - currently unused. PIRI will activate this for district heating
- The PERF is the main low-carbon heat source for PIRI
- It will also provide the main source of electricity for connected customers



Final Scheme Summary



Concept

- Multi-vector, low carbon energy networks
- Connecting the heart of Peterborough

Design

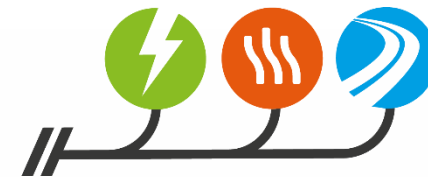
- Route selection and optimisation
- Energy flow and commercial modelling

Delivery

- 92% CO₂ reduction
- Financially and technically robust solution



Next Steps



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