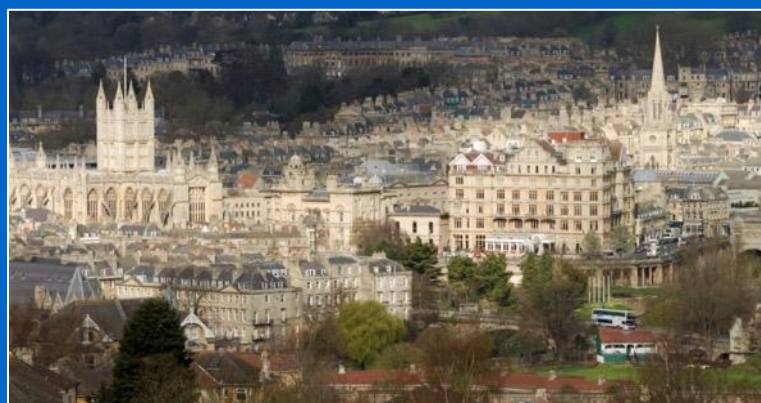




**Bath & West  
Community Energy**  
Generating local energy

# Bath & West Community Energy



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**8<sup>th</sup> November 2023**

# Our set up



Launched in 2010

Community Benefit Society owned and controlled members

You can become a member by investing.

Current share offer – minimum £100 with return of up to 4% paid annually

One member = one vote

Asset lock

Cover B&NES and bordering areas of Wiltshire & South Gloucestershire



# Achievements



Raised £22.5m in community shares and £10m in commercial loans

Installed capacity of 13.35MW – enough to power 4,500 homes

Imminent launch of retrofit support service



Donated over £330,000 through our Community Fund



# BWCE Aims



↑  
Renewable  
Generation



↓  
Energy Demand

Through collective action  
& community ownership



For community benefit



**“Clean Local Energy,  
Community Owned for the  
Common Good”**

# Complex Site Local Supply



- BWCE very interested in potential for complex site local supply
- Closely involved in legislative efforts to agree simplified guidance via elexon P441 working group
- Meter configuration issues so far preventing implementation at all live sites.....

**Ground mount sites --- Voltage level mismatch**

**Roof mount sites --- Demand aggregation meter**

# Feasibility work 2023



ReDREAM project support enabled BWCE staff time and Energy Local resource to conduct further modelling and feasibility work:

- Staff training on Energy Local structure and outreach requirements
- Mapped substation areas, identified potential site clusters
- Modelled cluster level half hourly demand and generation
- Estimated benefits for generators and households



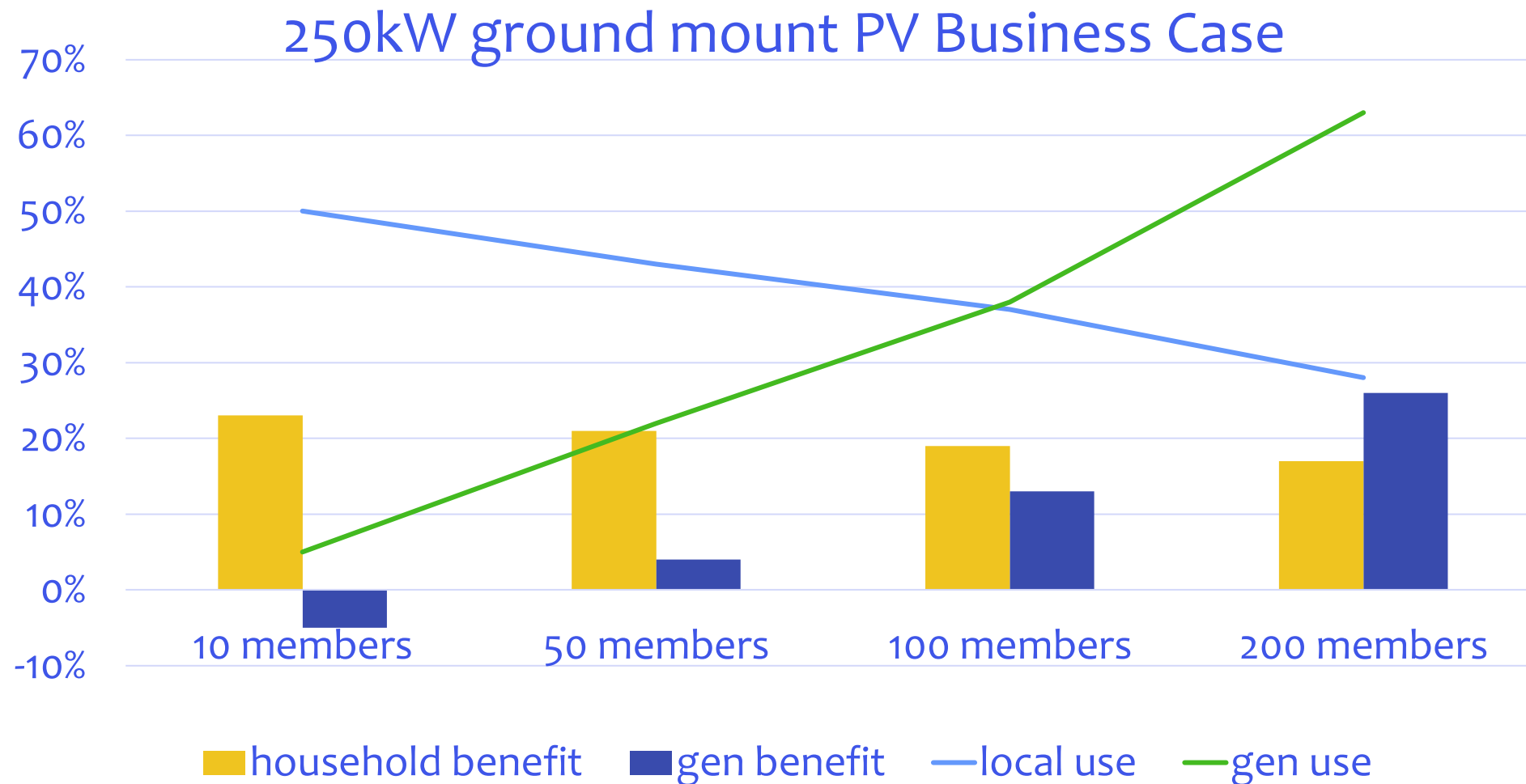
ReDREAM

change your energy



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°957837

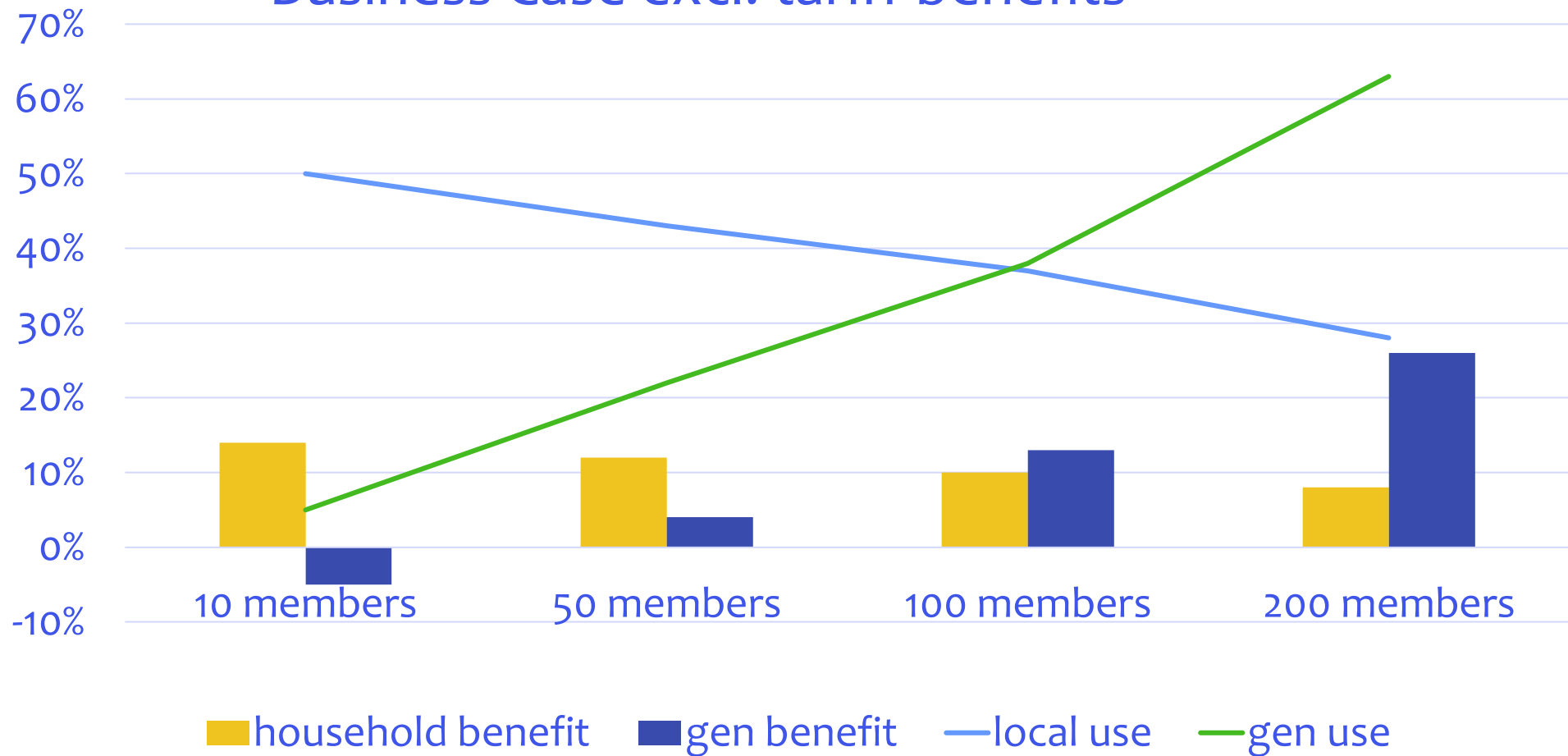
# Ground Mount business case



# Ground Mount business case



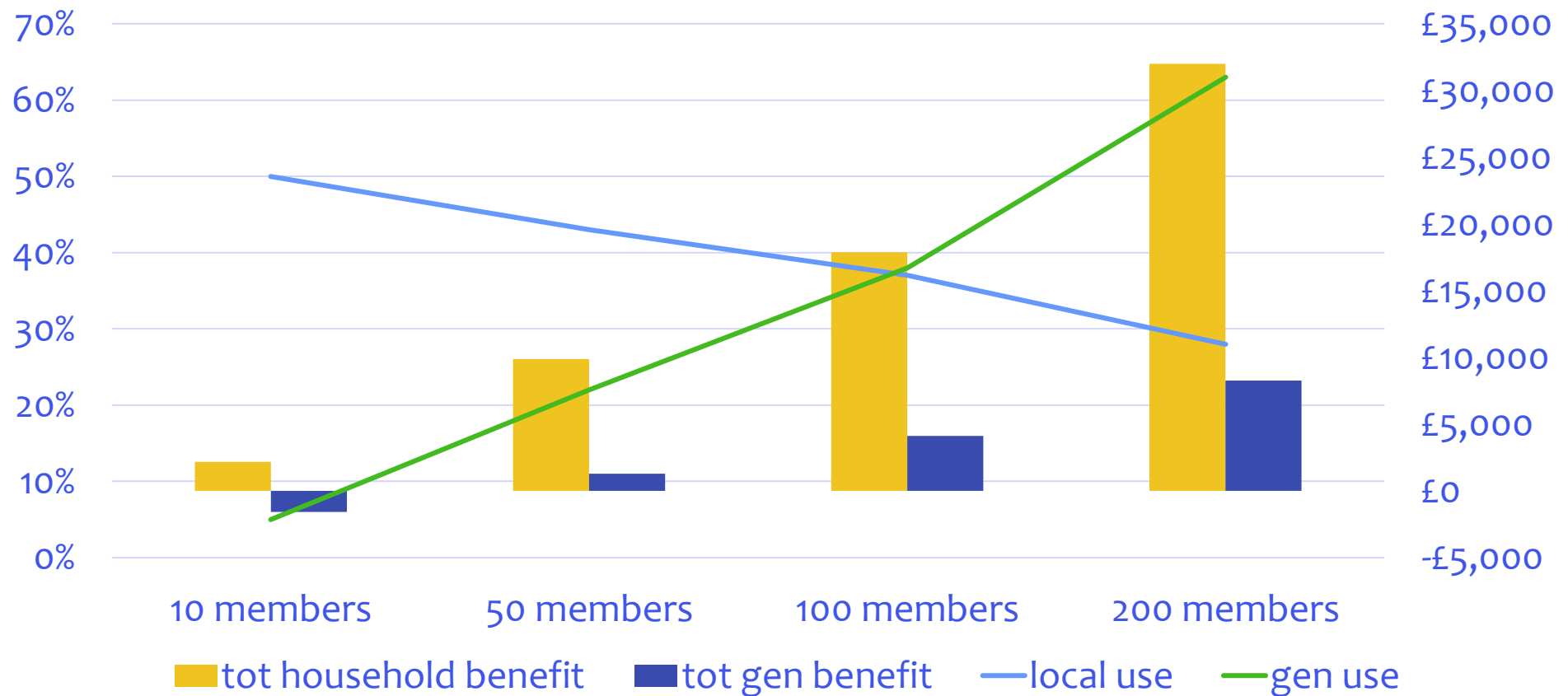
## Business Case excl. tariff benefits



# Ground Mount business case



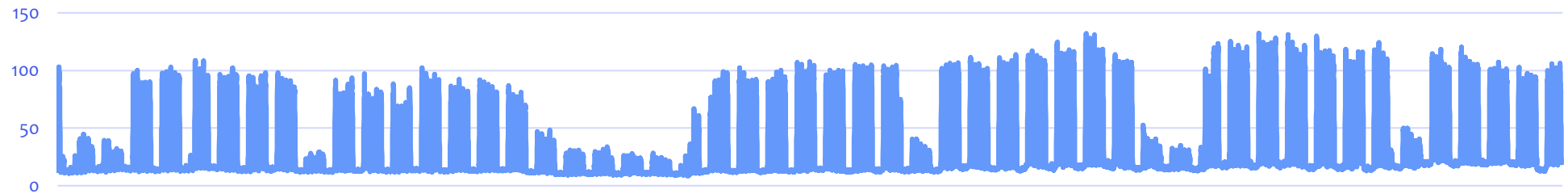
## Business case, showing net benefits



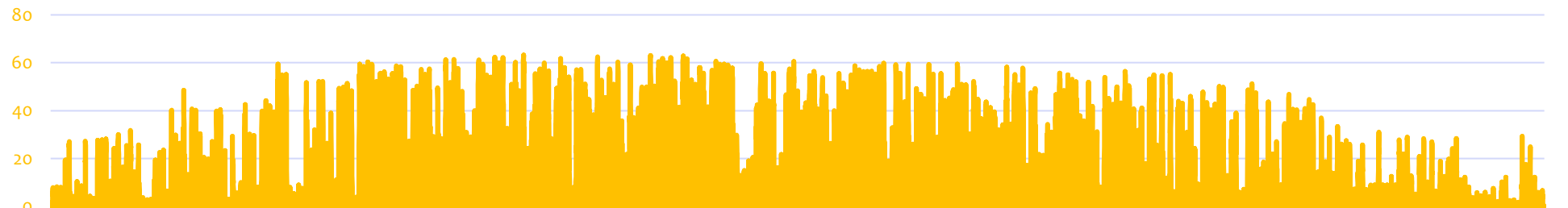
# Local supply alongside onsite loads



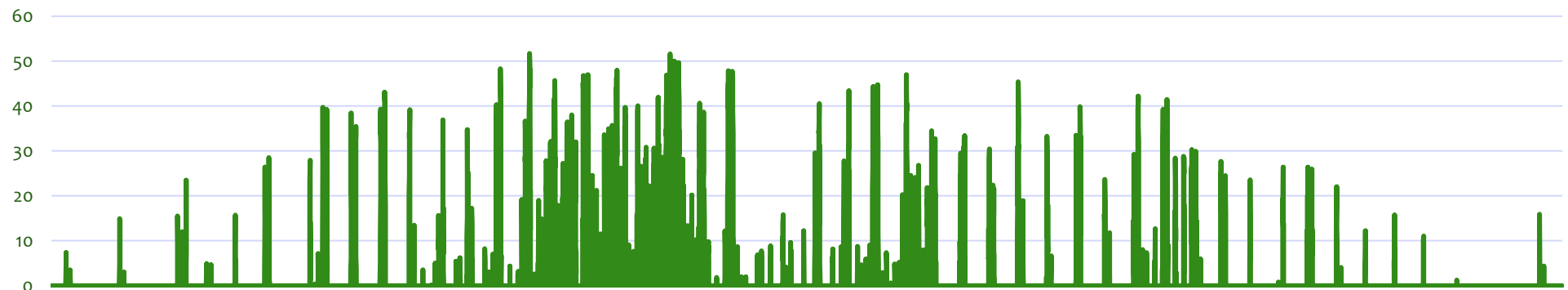
School A onsite demand (kWh)



School A Modelled PV output (kWh)



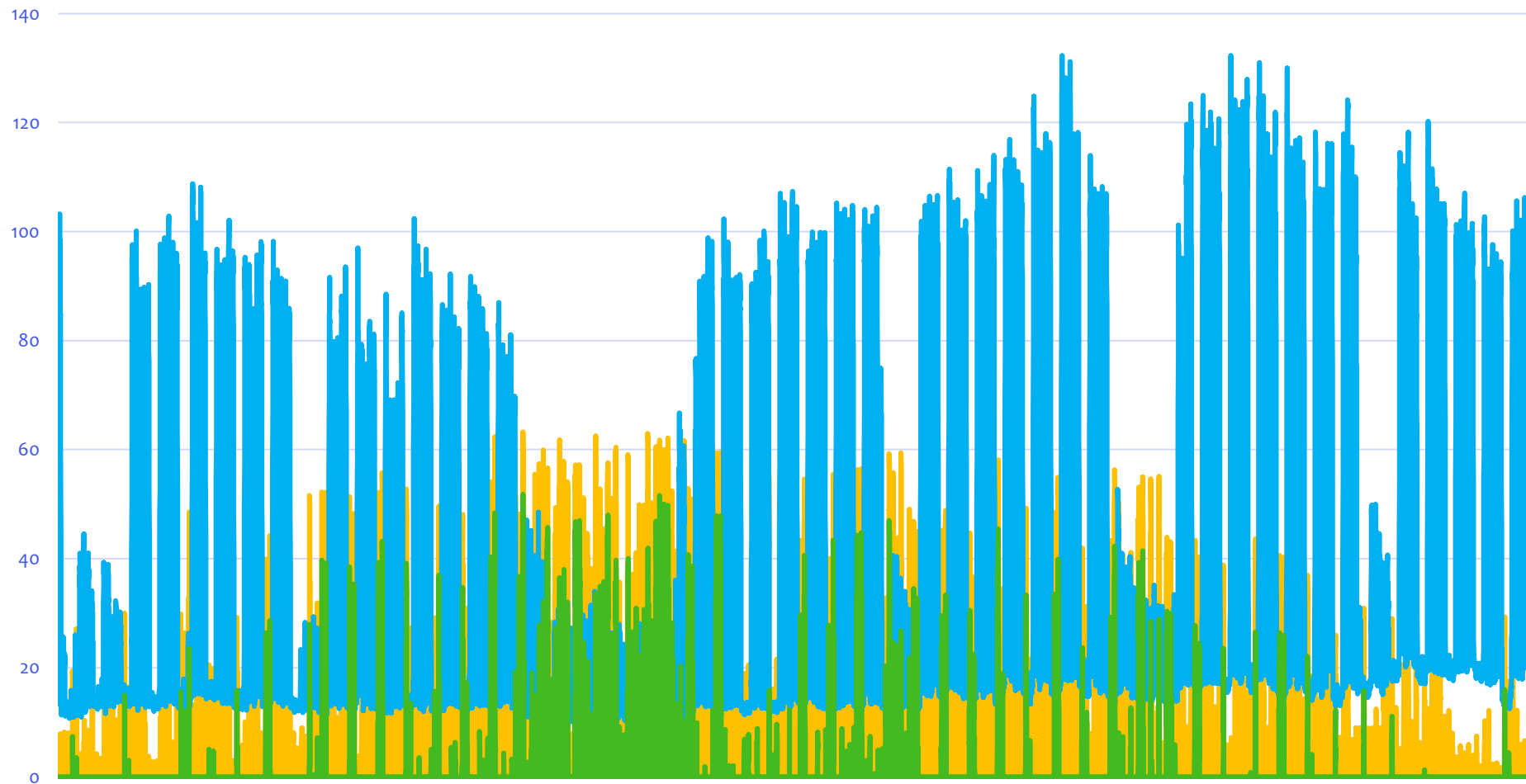
School A modelled export (kWh)



# Local supply alongside onsite loads



School A - modelled generation, use and export



# Identifying clusters

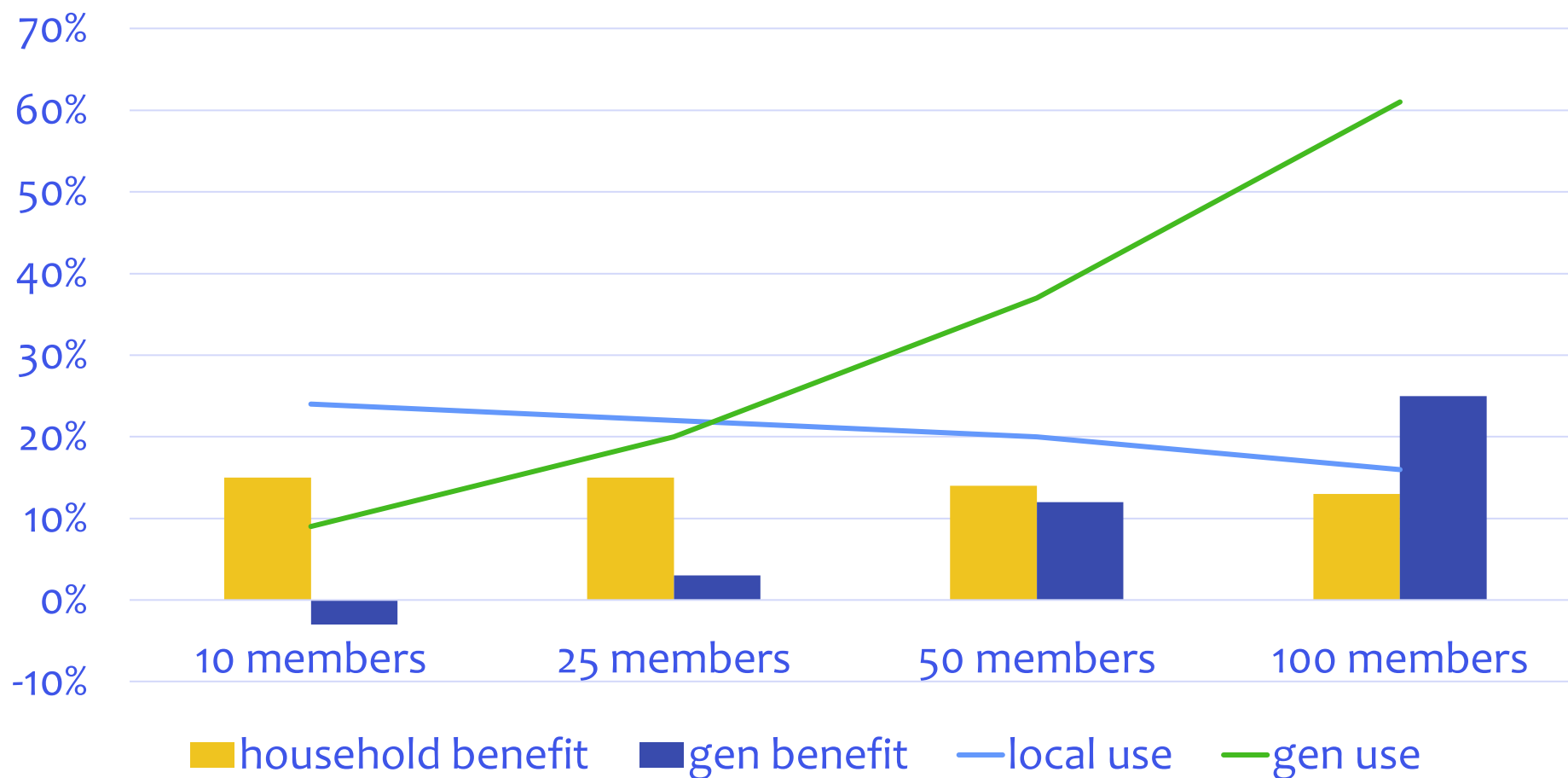


Name	Address	System size	Estimated export	Connection voltage	Primary S/S
[REDACTED]	[REDACTED]	261.8	48872	415V	Entry Hill
[REDACTED]	[REDACTED]	120	18123	415V	Entry Hill
[REDACTED]	[REDACTED]	159.39	26344	415V	Midsummer Norton
[REDACTED]	[REDACTED]	113.96	32259	415V	Midsummer Norton
[REDACTED]	[REDACTED]	168.38	24198	415V	Foxhills
[REDACTED]	[REDACTED]	122	14663	415V	Foxhills
[REDACTED]	[REDACTED]	188	32568	415V	Midsummer Norton
[REDACTED]	[REDACTED]	250	212952	11KV	Chewton Mendip

# Cluster Business Case



## Cluster 1 Local Supply Case (470kW total PV)



# Next Steps



- Continuing to support P441 efforts
- Seeking aggregation meter partner for north Bath supply project
- New LV ground mount development
- SWNZ Hub support to investigate PV designs which maximise peak time output
  - East / West arrays; vertical mount PV; mixed technology sites
  - Recognition in PPA prices
  - Use to mitigate solar PV value erosion risk



**Any Questions?....**