Portfolio BSM for the Future of Hamilton

TEP Energy, Switzerland
Chalmers University, Sweden
University of Toronto, Canada
Background: Portfolio and Building Stock Challenge

1. Social housing towers in Hamilton need retrofits
2. City of Hamilton has climate goals: - 80%
Challenge at various levels: technical, economic, financial, social, urban planning

➤ Need of a tool to conceive, valuate, plan, implement and monitor
Steer the retrofit process with the Portfolio BSM

Update BSM database
- Implemented projects
- Energy consumption
- Utility satisfaction

Compare actual vs. expected

Plan
- Filter
- Prioritize
- Anticipate funding
- Refine data to design projects

Analyse current situation
Retrofit need and options

Monitor impact
Adjust strategy

Define goals
Conceive strategies

Evaluate strategies
Cost-utility analysis

Set up data base
- Gather available data
- Complement lacking data
- Structure and integrate

Select retrofit options from rich BSM database
- Check feasibility of goals
- Explore impact of measures

Define metric
- Criteria:
  - Scale and weight
- Evaluate utility
  - BSM
  - Stakeholder engagement

Evaluate utility
- BSM
- Stakeholder engagement

Plan
- Filter
- Prioritize
- Anticipate funding
- Refine data to design projects
Impacts thanks to the BSM

1. Do informed and co-created decisions
2. Increase utility for owners and tenants
3. Achieve optimal impact from constraint investment budgets

• Benchmark Canadian Portfolio Manager
• Find common solutions to tap renewables
• Portfolio retrofit urban energy planning => Hamilton Community Energy Plan (CEP), MyHeat Hamilton

Source: Tower Renewal Guidelines Toronto, NRCAN, TEP Energy
Business case of using the Portfolio BSM

1. Strategic, informed and co-created decision making: Saves money and yields utility from investments

2. Building portfolio (investment) management is generic

3. Adjustment to local circumstances and implementation: through Canadian partners (e.g. UoT, service providers)
Integration roadmap: Next steps

- The (expert version) of the BSM is available and used in many projects
- The Portfolio BSM still needs some additions (e.g. online interface)
- Innovative pilot clients, e.g. Hamilton, take advantage of various benefits

Available now: Studies with expert BSM version: TEP Energy, Chalmers University, service provider(s) who perform(s) studies and provide advice

CREATE proposal to Climate KIC: Web service tool to be used by yourself or by your service provider(s)

Available on request: In-house (stand-alone) tool delivered to you and to be used by yourself

We provide tools and advice

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