

## Renewable Heat-as-a-Public-Service (HaaPS)

Three implementation propositions  
for Cantons – from *Full RHaaPS*  
down to *Basic support*

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Renowave SP 3.2

4.2.2026

**Wirtschaft**



# Content

1. Introduction

2. Three propositions for Cantons with Illustration: RHaaPS and more basic implementations

3. Descriptions

# 1. Introduction

# Approach

## OBSERVATION

- Multi-family home (MFH) renewable heat transformation remains **too complex**, and energetic building renovation generally **too low priority for homeowners**, to expect the required rapid fuel switch uptake to materialize with market-centered mechanisms alone.<sup>1</sup>

## SOLUTION

- A carefully calibrated approach with **strong public role** but **distributed responsibilities** and preserved **efficiency incentives** promises an **effective & long-term market-friendly** approach, currently tested in Geneva. Here we present a compatible concept as Renewable Heat-as-a-Public-Service (HaaPS).

## BARRIER

- **Not all Cantons have the experience & capacity** required to implement the complex large scale MFH building energy transformation scheme in standalone

## OPPORTUNITY

- **Pooling**, strong **public information sharing**, **policy certainty**, and **limited guarantees** may achieve part of HaaPS with limited effort

## THIS PRESENTATION

- High-level view on three **approaches for large, medium, and small capacity Cantons**
- No 1:1 ready-made solution for each Canton. Instead: **Starting point for local adaptation**

<sup>1</sup> **Clarification:** The challenge is not a trivial failure of markets per se, but of (i) *fragmented, actor-by-actor decision-making under tight political deadlines and high heterogeneity*, where coordination and learning externalities dominate and cannot be efficiently internalized; and (ii) a situation in which ambitious political targets (*rapid and full decarbonization*) are not matched by sufficiently strong economy-wide price signals (*in particular, only moderate carbon pricing*), such that individually even (approx.) rational investment decisions may remain misaligned with the collective target.

# Focus and Exclusions

## FOCUS

- This presentation focuses narrowly on **heat pumps (HP) for MFH**.

## NOT IN FOCUS

- **District heating (DH)**, which is for many buildings (those in dense enough urban centers) a more economical (and energetically at least as desirable) and therefore preferable alternative fuel switch option
  - DH, even if for modern and efficient renewable solutions also complex, is a much more traditional domain, and its provision as a public service to eligible houses has much precedence, it is in that sense less novel.
  - The current Renowave 3.2 project's central focus lies on the lagging HP adoption in MFH.
  - The actual anticipated implementation case in Geneva has strong focus also on DH, which will be provided to the concerned buildings as a priority. The current proposition is compatible with such an approach; moreover, many of the elements here discussed extend to the case of DH, as can also be seen in the Genevan concept.
- **Building envelope insulation improvement through refurbishment**, often tightly linked to the core topic of fuel switch from fossil to HP systems, is not explicitly addressed. In practice, any HP program implementation will have to also consider how to deal with different types of situations regarding building envelope age and standard.

# Definition and Justification for Renewable Heat-as-a-Public-Service (HaaPS)

## DEFINITION

- Renewable Heat-as-a-Public-Service is defined is not merely a contracting solution – although it includes that component – but implicitly a political choice that temporarily – as long as no readily available market solution exists – redefines heat provisioning in eligible buildings as a public service priority, rather than mere private responsibility.
- Applied mostly to Multi-family houses (MFH, by which we mean large buildings in general), it holds the public responsible to provide renewable heat to eligible buildings under reasonable terms, which we interpret as tariffs comparable to conventional heat costs; depending on political preferences *maybe* even with a price cap for users if in some cases cost-covering tariffs would otherwise appear to be excessive.
- In practice, this corresponds to the public being responsible for (i) District Heat solutions where – in dense urban areas – these are economically efficient, and (ii) Heat Pumps otherwise, i.e., for the remaining MFH
- For single-family houses (SFH), heat may be considered as remaining primarily private responsibility: Affordable market solutions, and options for users to optimize net energy costs abound even in a decarbonized system – at least in modern SFH, while old SFH are potentially closer to the MFH case.
- *In this first proposition, we abstract from edge cases and exceptions, which will undoubtedly occur.*

## ANTI-DEFINITION

- Renewable Heat-as-a-Public-Service does not mean heat delivered freely, and it need also not necessarily be delivered to all buildings at the exact same tariff, even if some degree of tariff standardization and/or capping may be justifiable and helpful for acceptability of the compulsory decarbonization agenda.
- HaaPS does not necessarily mean the public obligates buildings to participate, even though if politically chosen this might be an option, today already popular in the case of DH, and a theoretical solution to a potential slow uptake for individual building solutions (see slide “Political Reality”).
- While a very strong market position of the public entity is expected in HP HaaPS (maybe a de-facto monopoly; as anyway explicitly foreseen for DH), MFH (not DH-connectable) may privately organize fuel-free heat supply (with recourse right against the private solution for tenants if they pay inadequate fees).

# Definition and Justification for Renewable Heat-as-a-Public-Service (HaaPS)

## TENTATIVE JUSTIFICATION: SOLUTION DEMAND I/II

- Private provisioning is a prerequisite for an efficient solution if individuals mostly are responsible for (i) affecting the cost of a solution (=behavior) and (ii) are required to determine how the optimal solution (here: technology) looks like; holding individuals responsible in that way may potentially be seen as 'just' in particular if framework conditions simply reflect social costs: if an individual is incentivized to behave in a socially optimal way, yet free to individually optimize within these conditions.
- In the case of MFH heating choices, within the current policy framework & targets, none of these conditions hold: costs for the new solutions are determined mainly by long-ago determined building features; technical solutions are largely pre-determined (DH or air-water HP being often the sole realistic solutions, with DH preferred where available) and the mostly uniform deadlines politically chosen for the fuel phase may be quite far from the individually ideal solution – rather than adequate carbon pricing to nudge users towards voluntary fuel switch, the switch is simply imposed, while fossil fuel solutions may even remain comparatively cheap in some cases. This political route may be justifiable in terms of political simplicity and of social cognitive load uniform phaseout, but it already leads far away from “market” functions.
  - Comes on top that market forces – independently of the just mentioned more fundamental issues – have a particular difficulty to work on MFH heat, due to complex & diverse rules/market situations leading to various situations of 'split incentives' between tenants and landlords.
  - Finally, some houses get provided by DH heat while others don't; and many of the old buildings have difficulty to energy-renovate because of Heritage Protection (Heimatschutz). This subjects building owners to a lot of arbitrariness.
- It can therefore be concluded that some of the most fundamental reasons for usually preferring private provisioning, do in important ways not necessarily hold for MFH heating decarbonization, suggesting a largely collective solution – centered around (MFH) building heat as a public service – may be an adequate approach if it enables the decarbonization politically targeted but otherwise difficult to achieve.

# Definition and Justification for Renewable Heat-as-a-Public-Service (HaaPS)

## TENTATIVE JUSTIFICATION: SOLUTION DEMAND II/II

- Importantly, this public-service framing does not assume 'moral entitlements' of any sort, but is grounded in time-consistency under binding political constraints: if rapid and full decarbonization is non-negotiable and deadlines are uniform, society may also assume partial responsibility for delivery and implementation risk (and potentially costs).

*Note: Naturally, any house user has a degree to which she can daily influence her actual final heat consumption, and this freedom will in all solutions remain a free choice for whose eventual costs she remains responsible by paying the fee for the energy consumption itself, irrespective of the given technological solution. Fuel switch/heating infrastructure as public service doesn't imply free energy.*

# Definition and Justification for Renewable Heat-as-a-Public-Service (HaaPS)

## TENTATIVE JUSTIFICATION: SOLUTION SUPPLY

- The validity of approaching a problem from the public side must further consider the 'solution supply side', i.e., the availability of suitable solutions – and whether these really may solve more problems than they create in turn.
- With the (somewhat) concrete Renewable HaaPS solution depicted in the following, achievable by Cantons that combine (i) a strong determination to effectively and rapidly decarbonize MFH heat and (ii) capacity to technically and financially assure efficient and implementation, the aim is to provide such a solution that is well suited to solve the conundrum of the lack of MFH decarbonizations in a way that is friendly for the emergence of an ecosystem enabling a more cost-effective and market-based solution in the medium-term.
- Conversely, there seems so far to remain a lack of non-intrusive solutions that promise a rapid uptake of MFH decarbonization solutions. Short of massive subsidization, which can be seen as remaining closer to a 'market solution' but may (i) cost the public much more and (ii) yield unjustifiable windfall gains for many individual building owners or contractors, and (iii) fail to encourage the emergence of an ecosystem providing economically efficient solutions under cost-reflective terms.

## TEMPORARY NATURE

- Once a market exists that can reliably provide cost-effective solutions for all or most market participants, the role for the public may – if politically desired – be reduced to a more passive one, observing the market and potentially contributing in a more light-weight way to its effective and efficient functioning.

# Political Reality of Renewable Heat-as-a-Public-Service (HaaPS)

- The above justifications are qualified as “tentative”. While they support that public provisioning may (for example) combine a high degree of effectiveness and economic efficiency for rapid decarbonization in comparison to a laissez-faire, they do not constitute an unambiguous reason why only viewing the matter as a public service issue can achieve a reasonable outcome. In fact, it is commonly understood that the classification of what is and isn’t a public service – and what it implies – doesn’t rely on abstract rules but is in important ways a result of (historical) political decisions and societal tastes (see e.g. Prosser 2005).<sup>1</sup>
- Irrespective of whether the above is considered sufficient to justify strong public intervention, we observe:
  - An approach that, even if not framed exactly the same way as here, fits well with the here presented proposition, is currently planned for implementation in Geneva, headed by SIG (implementation partner of the Renowave project), where popular vote in 2022 attributed the canton (subsequently passed on to SIG) with a mandate and monopoly for public solutions to the house heating decarbonization challenge
  - Addressing the problem of lacking renovations in more lightweight and pure private market focused way appears to be notoriously difficult
    - For example, the search for pure-financing solutions to the problem, has found mostly negative results – owing not least to the complexity of idiosyncratic house ownership preferences and situations – suggesting not nuances in financing conditions, but rather an inadequacy of economic incentives vis-à-vis the politically defined goal of full decarbonization within a few decades, hinder renovations, as well as a lack of market ecosystems offering adequate standardized solutions (Renowave subproject 3, in particular Renowave 3.1).
- Whether (or to which extent) solution adoption may even be publicly ‘imposed’ on buildings remains open within the here presented framework; it may be left to political decision. For DH solutions, connection of accessible buildings is already today often compulsory worldwide including partly in Switzerland.<sup>2</sup>

<sup>1</sup> Prosser (2005) *The Limits of Competition Law: Markets and Public Services* (Oxford University Press, 2005)

<sup>2</sup> For DH with renewable and economically adequate (usually interpreted as not much pricier than individual fossil fuel) solutions, cantons or municipalities can obligate buildings to connect, see [MuKEEn 2025 Modul 9, Art 9.4](#) (former MuKEEn 2014 Modul 10 Art. 10.4.)

# Relation to prior RENOWAVE research: Public Contractor & Facilitator roles in Zapata et al., 2024

**Zapata et al. (2024)<sup>1</sup> identifies two archetypal public roles** to overcome barriers to MFH heat-pump adoption under high transaction costs and risk:

- Public actor as Contractor (asset-owning, risk-bearing, orchestrating contracting)
- Public actor as Facilitator (risk-reducing, standard-setting, enabling private contracting)

## Direct parallels to this presentation

- Case A (HaaPS) builds on the *Public Contractor* role
- Cases B / Case C correspond to variants of the *Public Facilitator* role
- Shared diagnosis: transaction costs, risk allocation, lack of standardization, split incentives

## Key extensions in this presentation

- Explicit integration of binding political timelines (rapid, full MFH decarbonization)
- Reframing the *Public Contractor* role as a temporary **public-service logic (HaaPS)**, not only a contracting model
- Recognition that public contracting alone, if kept narrowly non-intrusive, may still fail to deliver the speed & scale implied by binding decarbonization mandates → **HaaPS as highly active role, not passive offer** (although it is a political choice to which degree the public can impose solutions to buildings, see slide “Definition”)
- **Development of a highly specified contracting architecture** (e.g. local representation, centralized learning and replicability, aggregated low-risk financing), informed by real-world development (Geneva)
- Explicit differentiation by cantonal capacity (A/B/C), rather than a single optimal role

# Residual risks under public contracting – and how the HaaPS design responds

## What public contracting already resolves (see Zapata et al., 2024)

- Access to long-term capital and balance-sheet constraints
- Default risk of tenants / building owners
- Basic feasibility of contracting under high transaction costs

## What remains partially open even under public contracting

- Tariff estimation risk (ex-ante pricing under uncertain performance)
- High transaction costs at scale and limited standardization across MFHs
- Ecosystem-level learning beyond pilots and individual projects
- Speed and scale under binding, near-term decarbonization mandates
- Stabilization and exit logic once markets mature

## How the HaaPS design responds (mechanisms and limits)

**Tariff estimation risk:** Portfolio aggregation, long-tenor financing, and explicit tariff governance (incl. caps or partial socialization) reallocate pricing risk away from individual projects, reducing sensitivity to misestimation, while detailed tariff design remains a political choice.

**Transaction costs and standardization:** Centralized planning, standardized interfaces, and certified tendering combined with local (municipal) representation: Unlocks larger scaling; lower per-project coordination costs and enable replication, though standards must evolve with technology and regulation.

**Ecosystem-level learning:** Mandatory “no-excuses” data sharing, KPI transparency (“Project Facebook”), and public benchmarking institutionalize learning and comparison, while the scope and governance of transparency still require calibration.

**Speed and scale:** Explicit public assumption of delivery risk decouples rollout from individual project bankability, though implementation remains constrained by planning, workforce, and supply-chain capacity. Public authority to “impose” adoption on buildings

**Stabilization and exit:** The public-service role is explicitly temporary, with benchmarking and legally open exit options creating a pathway back to lighter public involvement, even if concrete triggers and asset-transfer mechanisms remain to be defined.

## **2. Three propositions for Cantons with Illustration: RHaaPS and more basic implementations**

## Case A: High-Capacity Canton with a Strong Public Utility: Renewable Heat-as-a-Public-Service (HaaPS) (Geneva-like\* Pathway)

**Who leads:** Strong public utility / foundation

**What it does:** Orchestrates projects, reallocates risk, aggregates demand

**How:** Separates ownership, development, and operation; contracts private actors

**Instruments:** Guarantees, performance backstops, long-term heat contracts

**Why it works:**

- Reduces risk and coordination failures at scale
- Removes the *many* individual barriers to private fuel switch by (temporarily) transferring MFH heat provisioning into a public service
- Combines (i) centralized background org to benefit from technical ability, (ii) decentralized ownership, (iii) competitive tendering & performance incentives, (iv) efficiently designed guarantees & financing, and (v) public database for mutual learning

**Main risk:** Mission drift & institutional bloat → needs tight governance & no-excuses transparency requirements, incl. “Project Facebook”

➔ See illustration next & description in section 3

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\* Disclaimer: Despite collaborative engagement in the development of solutions, the solution presented here need not 1:1 correspond to the eventual politically defined final approach of the Canton of Geneva & SIG (which as of early 2026 are yet to be finalized).

## Note on illustrations

- Elements shown are opportunistically chosen to best convey the illustrated setup  
→ To reduce complexity, some (more obvious) relations (flows/contracts) are omitted

- Legend

Central public actor

Heat [..]

Contract

General elements

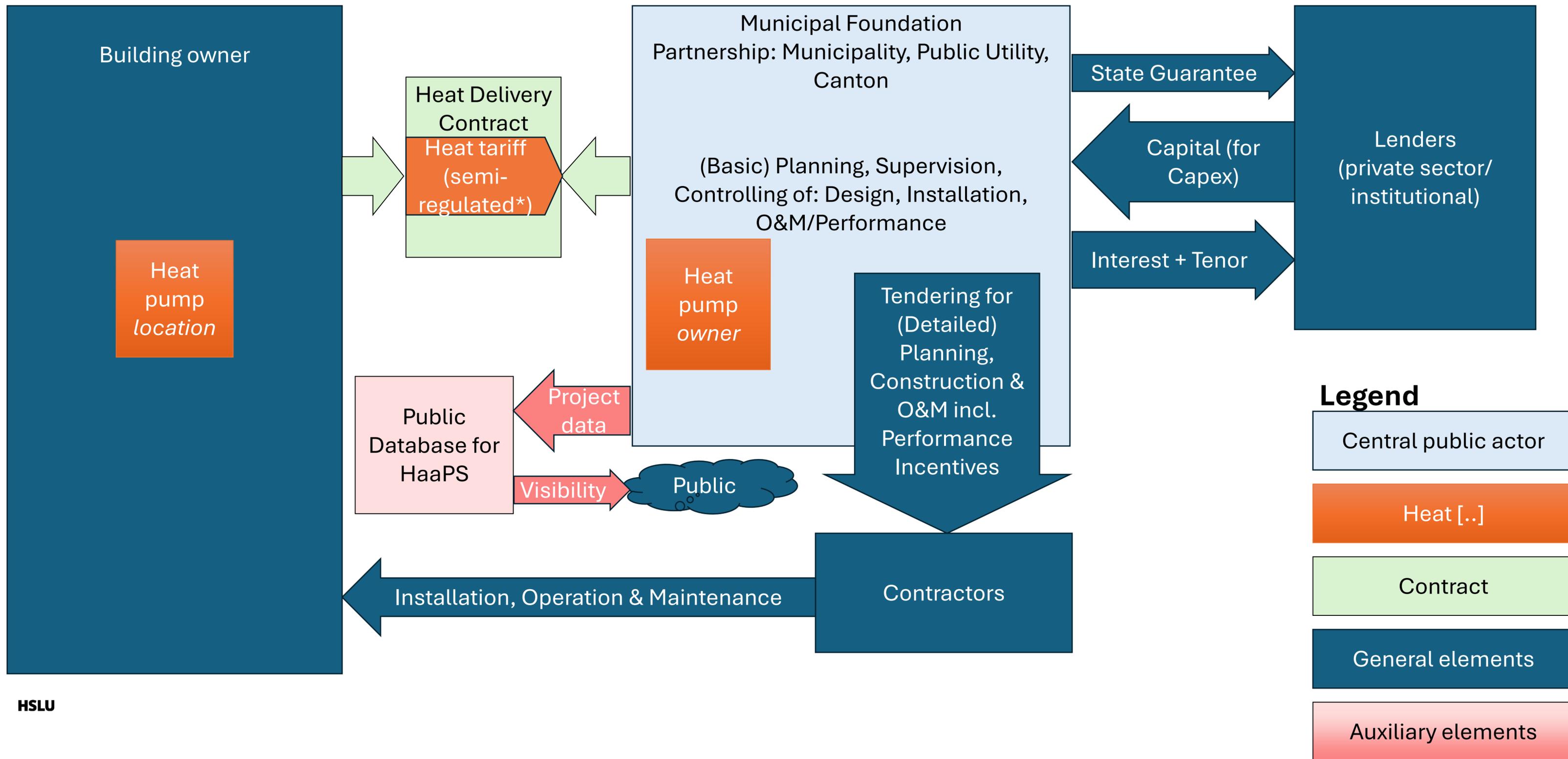
Auxiliary elements

# A. Renewable Heat-as-a-Public-Service (HaaPS)

## Heat Pumps

(where District Heat uneconomical)

**Simplified overview**

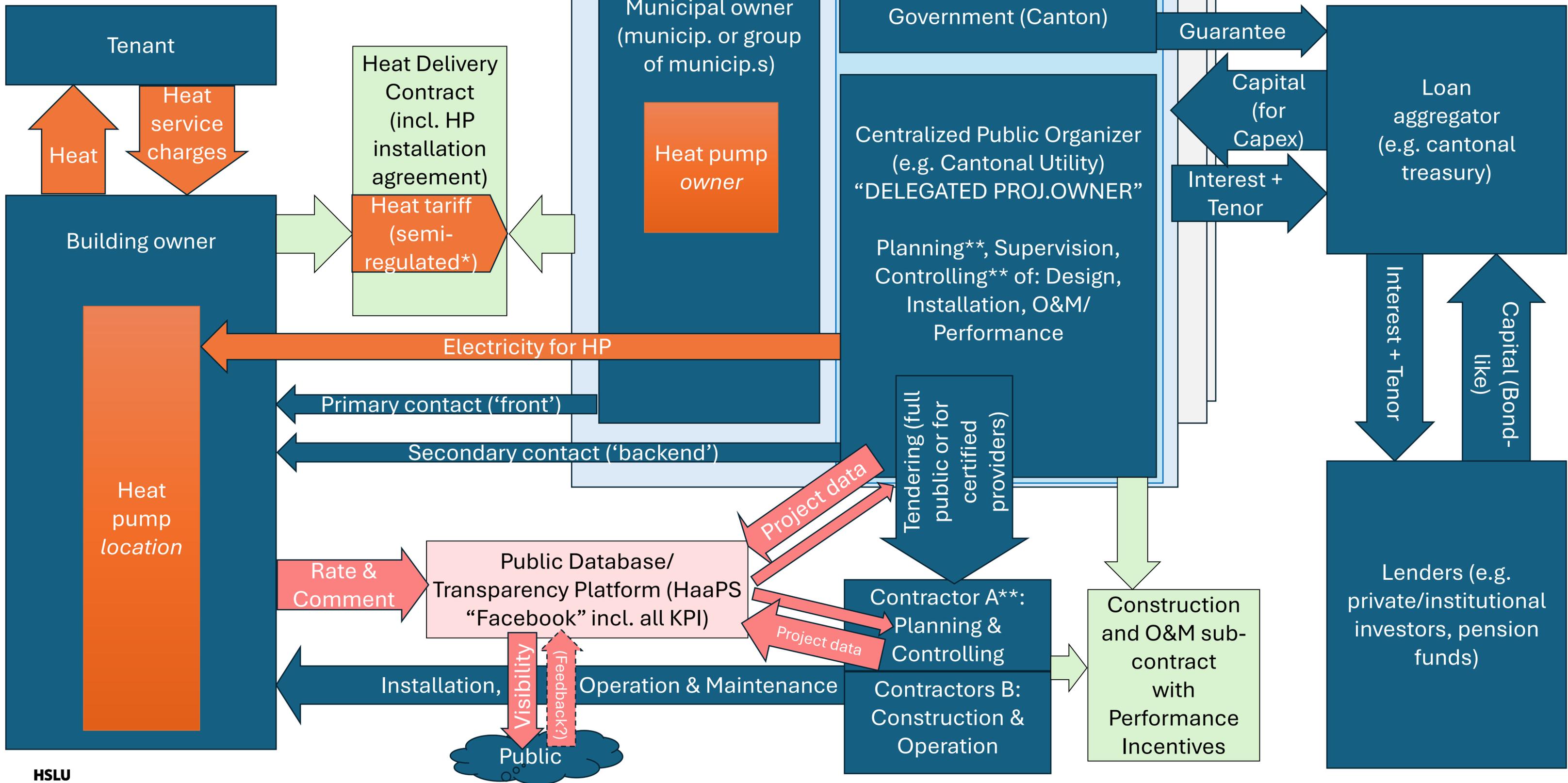


# A. Renewable Heat-as-a-Public-Service (HaaPS)

## Heat Pumps

(where District Heat uneconomical)

**Full diagram**

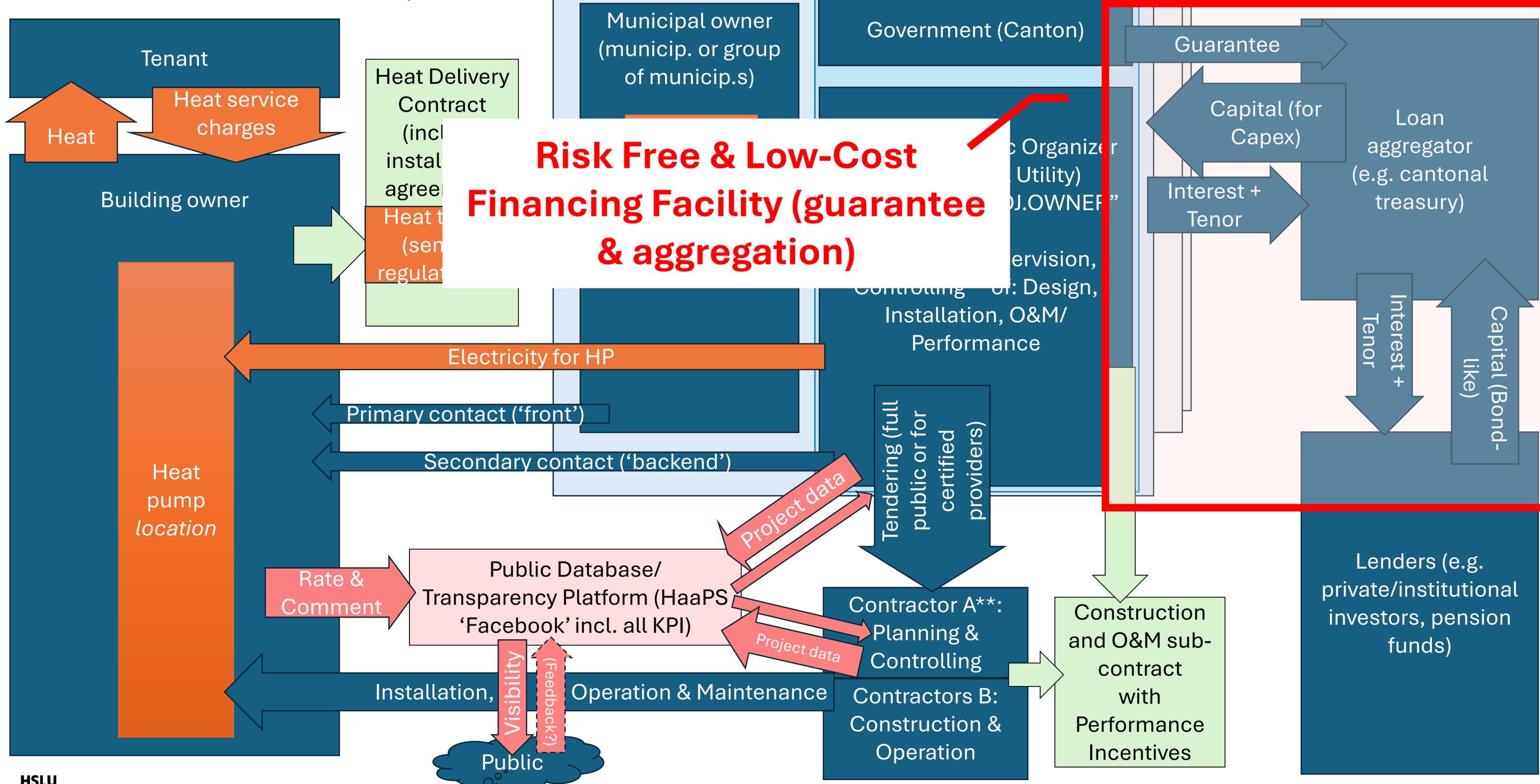


# A. Renewable Heat-as-a-Public-Service (HaaPS)

## Heat Pumps

(where District Heat uneconomical)

**Highlight 1**



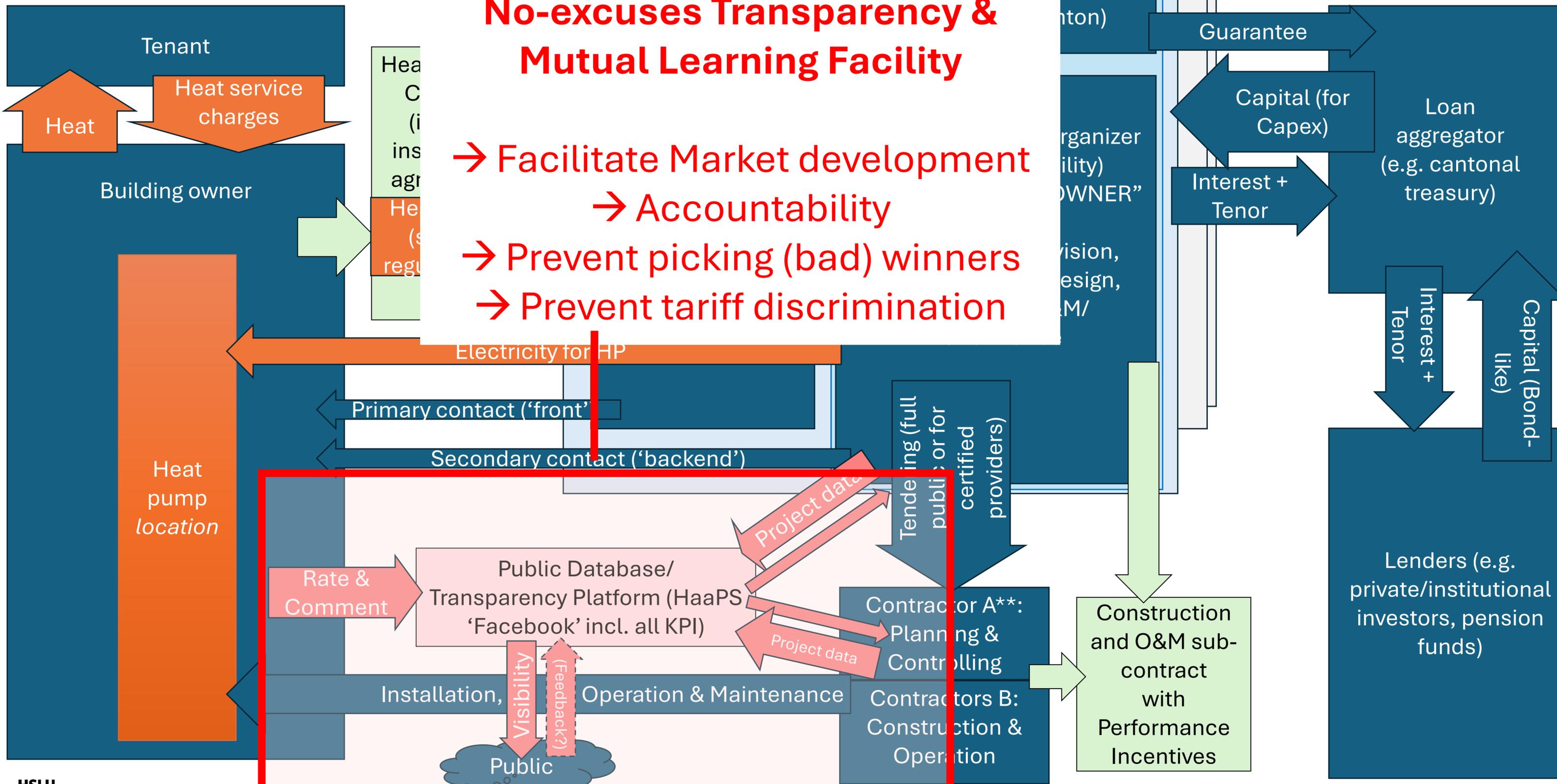
A. Renewable Heat-as-a-Public-Service (HaaPS)  
Heat Pumps  
(where District Heat uneconomical)

Municipal Foundation  
Municipal Foundation (Quasi-Monopoly\*)  
Foundation partners

**Highlight 2**

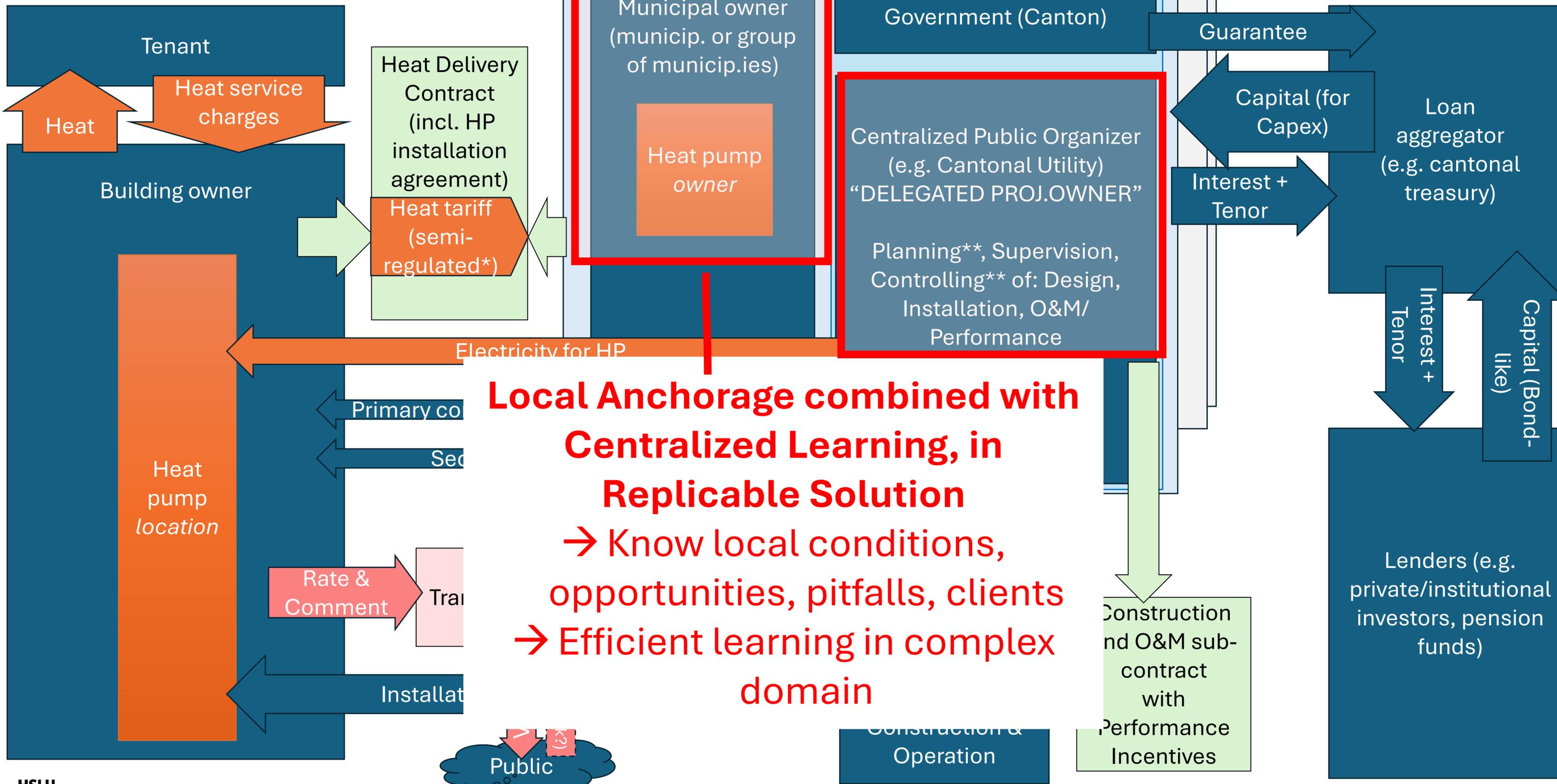
**No-excuses Transparency & Mutual Learning Facility**

- Facilitate Market development
- Accountability
- Prevent picking (bad) winners
- Prevent tariff discrimination



A. Renewable Heat-as-a-Public-Service (HaafS)  
 Heat Pumps  
 (where District Heat uneconomical)

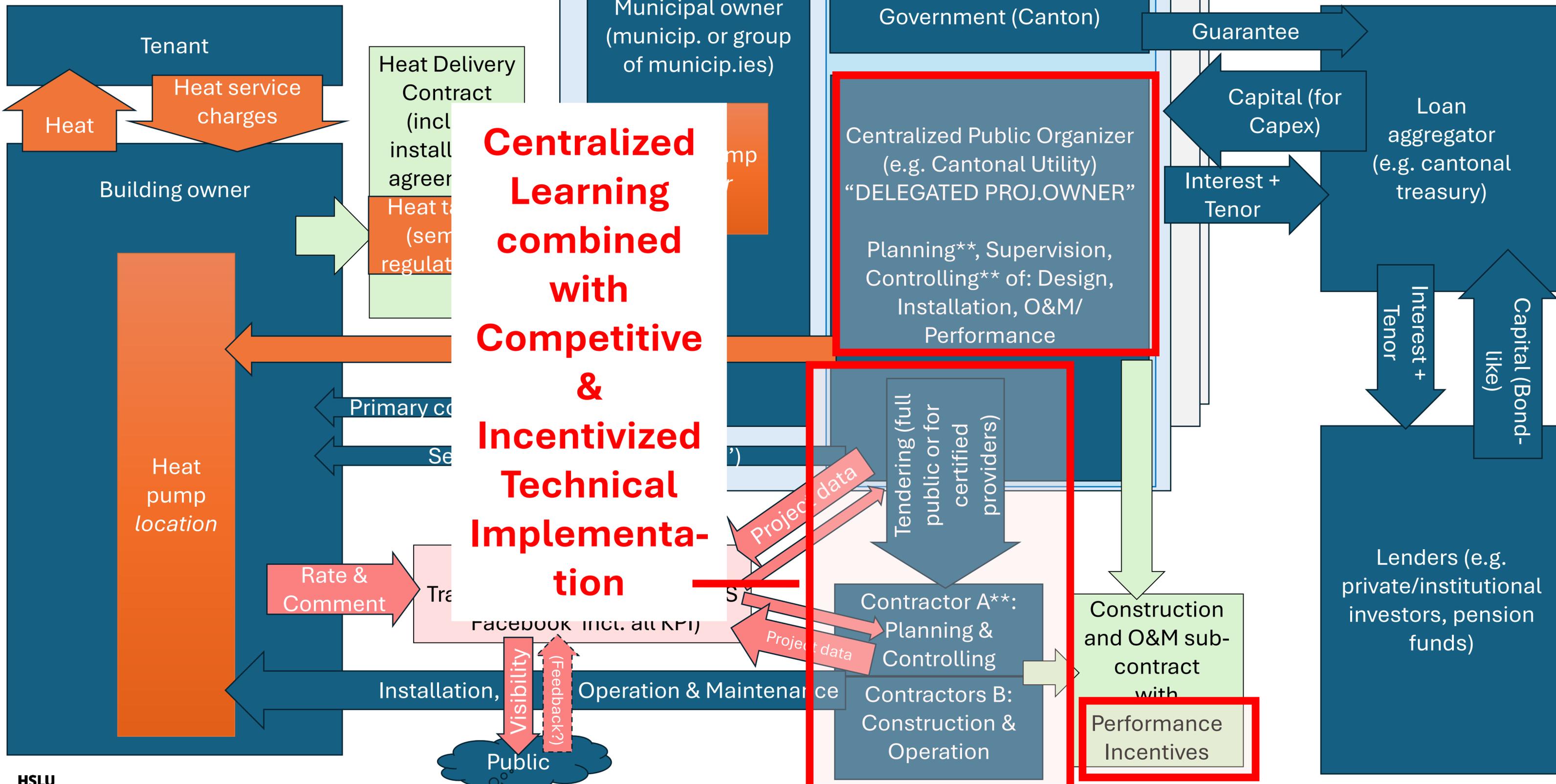
**Highlight 3**



**Local Anchorage combined with Centralized Learning, in Replicable Solution**  
 → Know local conditions, opportunities, pitfalls, clients  
 → Efficient learning in complex domain

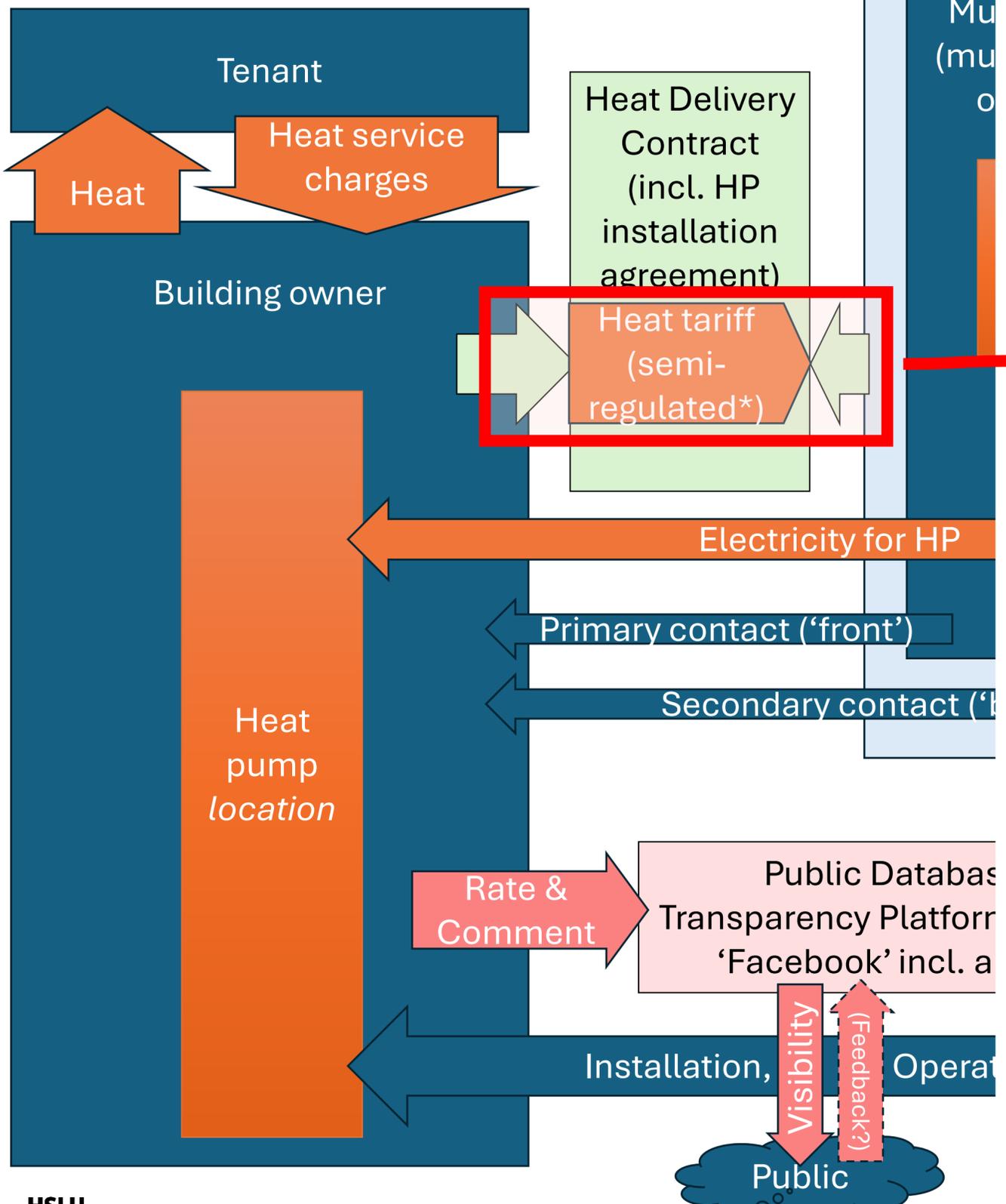
A. Renewable Heat-as-a-Public-Service (HaaPS)  
Heat Pumps  
(where District Heat uneconomical)

**Highlight 4**



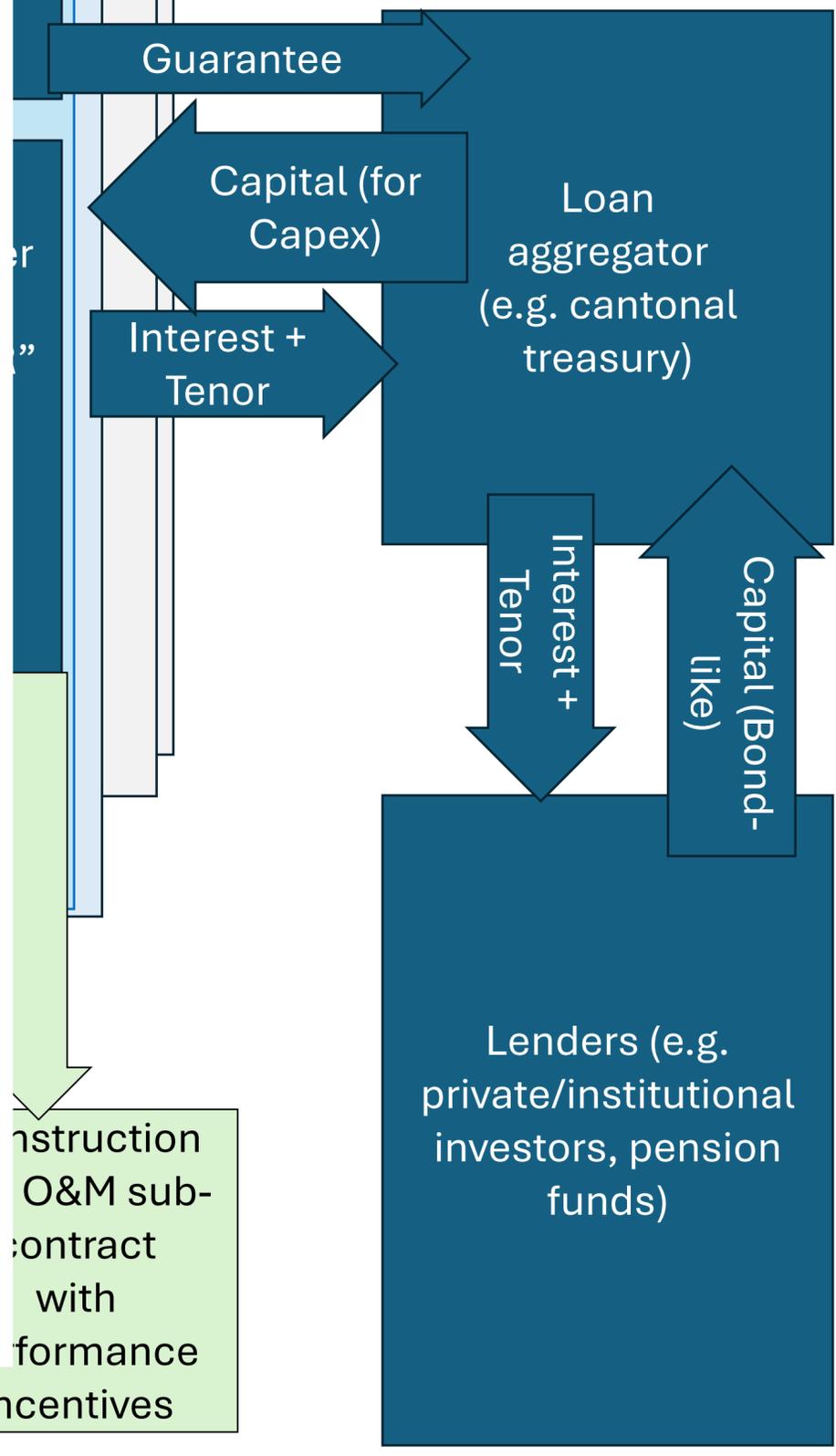
A. Renewable Heat-as-a-Public-Service (HaaPS)  
Heat Pumps  
(where District Heat uneconomical)

Highlight 5



**Heat-as-a-Public-Service Tariffs may include some or all of:**

- 1. Individual, Cost-Based component**
- 2. Socializing element (averaging)**
- 3. Cap: Upper Bound reflecting a justifiable upper bound on end-user cost, in view of the strictly imposed decarbonization while individual carbon savings are finite**



## Notes

\* Heat-Pump-as-a-Public-Service will not be an obligate monopoly (in contrast to District-Heating-as-a-Public-Service). But concentration of expertise & contacts in the Communal Foundation is expected to result in market dominance.

→ Regulation of tariff as prerequisite, given

- the strong market power
- obligation for clients to undergo the transformation
- the Communal Foundation's autonomy in designing, constructing, operating the solution.

→ Political decision to be made as to which degree regulated tariff allows (i) project-specific cost pass through, *i.e. more complex buildings have «1:1» higher cost; potentially with a cap*, vs. (ii) cost-socialization, *i.e. standard tariffs for all buildings or per building type, adjusting over time to actual average costs*.

\*\* Split between Centralized Public Entity and Planning Contractor to be defined in line with available skills & requirements

## Case B: Medium-Capacity Canton without a Dominant System Integrator (Facilitator Pathway)

**Who leads:** Canton as facilitator (not system integrator)

**What it does:** Reduces risk, standardizes interfaces, enables financing

**How:** Limited guarantees to banks + templates + advisory + public database (incl. pipeline)

**Ownership:** ESCO *or* building owner (flexible)

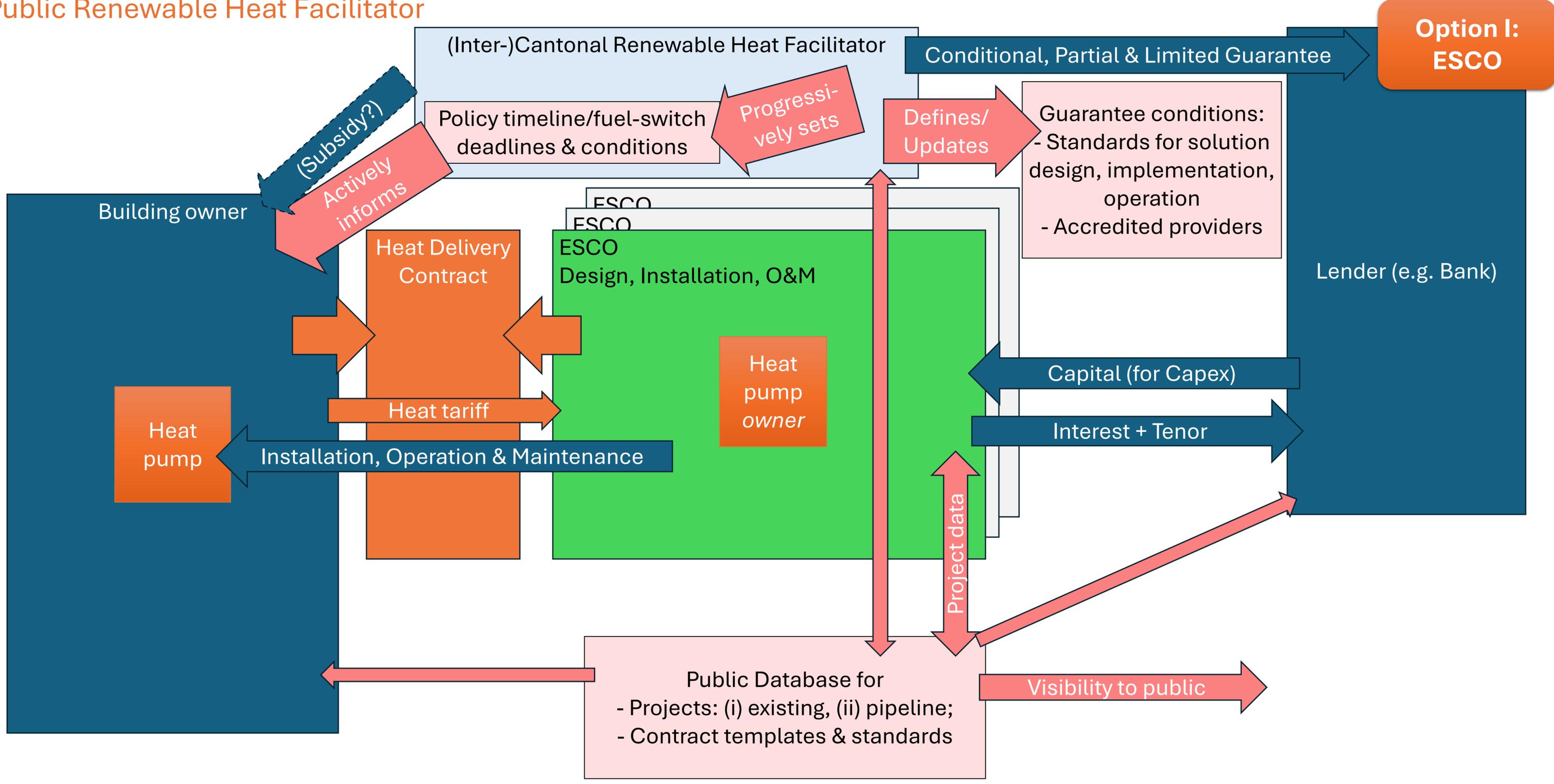
**Why it works:** Unlocks private investment without public asset ownership

### Main risk:

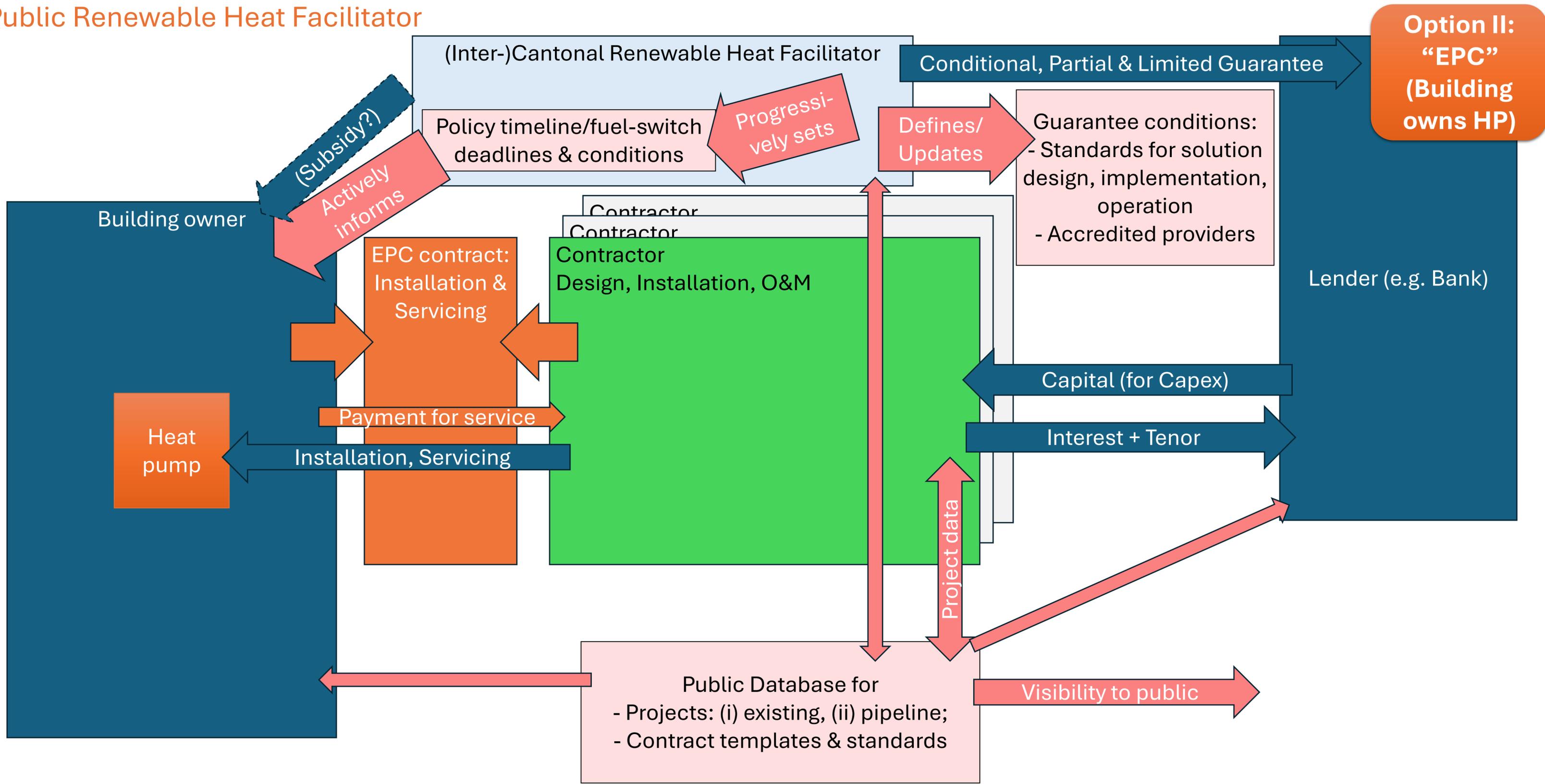
- Over- or under-use of guarantees → needs tight governance
- Merely facilitating without more actively implementing solutions may still mean many MFH owners fail to fuel switch in time (absent, e.g., major subsidies)
- Lacking a functioning ecosystem & centralized knowledge, a well-adapted market ecosystem may still struggle to emerge

➔ See illustration next & description in section 3

# B. Public Renewable Heat Facilitator



# B. Public Renewable Heat Facilitator



## Case C: Small Canton or Region with Limited Capacity (Lean Coordination Pathway)

**Who leads:** Canton as enabler (not facilitator, not operator)

**What it does:** Provides access to external solutions and shared instruments

**How:** Joins pooled guarantees, sets clear rules, shares information

**Ownership:** External ESCOs or building owners

**Why it works:**

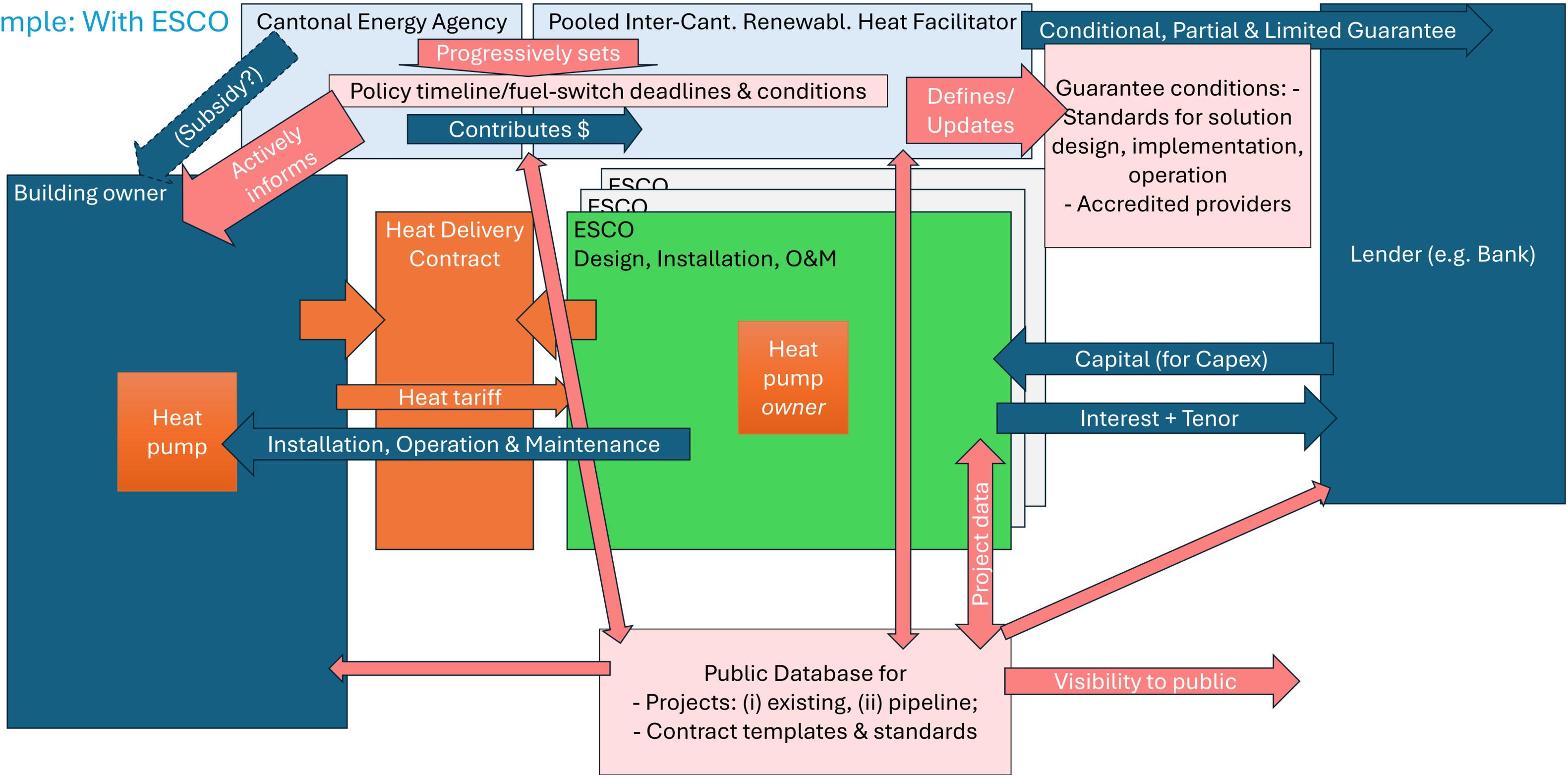
- Same risk logic as Case B, but with minimal local burden

**Main risk:**

- Vendor capture & loss of learning → needs transparency
- Same as Case B
  - Over- or under-use of guarantees → needs tight governance
  - Merely facilitating without more actively implementing solutions may still mean many MFH owners fail to fuel switch in time (absent, e.g., major subsidies)
  - Lacking a functioning ecosystem & centralized knowledge, a well-adapted market ecosystem may still struggle to emerge

# C. Pooled Public Renewable Heat Support

## Example: With ESCO



# 3. Descriptions

## **Context**

- Large canton / city with strong public utility
- High technical and administrative capacity
- Clear political mandate for rapid heat decarbonization

## **Core problem**

- Coordination failures and uninsurable project risk
- High transaction costs for building owners
- Private actors reluctant to bear long-term performance risk
- Potentially high opportunity costs in some cases contrasting with uniform political decarbonization mandate

## **Public role**

- Public responsibility or providing renewable heat at affordable cost → “Public service” (RHaaPS)
- Utility or quasi-public entity acts as system integrator
- Actively orchestrates projects and reallocates risk

## **Key principle**

- Separate ownership, project development, and operation
- Allocate each function to the actor best able to manage it

## **Institutional setup**

- Dedicated public or foundation-based entity/entities:
  - aggregates projects,
  - develops them to investment-ready stage,
  - contracts private firms for construction and operation,
  - holds assets directly or via SPVs/foundations
  - local representation on municipal level → e.g. *municipal* foundations with centralized utility & cantonal representation
- Building owners contract for heat as a service

## **Main instruments**

- Performance guarantees and backstops
- Long-term heat supply / energy-as-a-service contracts
- Targeted subsidies only to close residual gaps

## **Key governance risk**

- Strong public entity may evolve into a de facto (long-term) monopoly
  - Such market dominance is acceptable only as long as
    - (i) systematic benchmarking demonstrates persistent cost or performance advantages over decentralized alternatives, and
    - (ii) exit options for private provision remain legally and institutionally open.
- Risk of procedural bloat or over-customization
- Conflating objectives (e.g. “local suppliers” or “only suppliers with apprentices” may be politically desired in which case good, but conditions should not be arbitrarily extended)
- Requires: (i) clear mandate (ideally incl. sunset triggers); (ii) performance monitoring; (iii) external benchmarking; (iv) transparency with: (a) no-excuses against it (e.g., capex costs for elements must be public;) and (b) public commenting/complaints function open to third-parties

## **Context**

- Medium-capacity canton
- No single dominant utility acting as system integrator
- Private ESCOs and banks present but cautious

## **Core problem**

- Projects are technically feasible but perceived as risky
- Lack of standardization and repeatability
- Financing hindered by non-standard risk profiles

## **Public role**

- Canton acts as facilitator, not operator
- Reduces uncertainty and improves bankability
- Does not own assets or run projects

## **Key principle**

- Keep private discipline intact
- Use public instruments to address residual risk only

## **Institutional setup**

- Canton or inter-cantonal body:
  - provides limited guarantees to banks,
  - publishes reference contracts and guidance,
  - maintains a visible project pipeline,
  - links advisory services to implementation and financing
- Asset ownership:
  - either building owner or ESCO
  - canton remains ownership-agnostic

## **Main instruments**

- Capped, time-limited credit guarantees
- Standardized contractual templates
- Advisory services aligned with financing logic
- Targeted subsidies as gap-closers

## **Key governance risk**

- Delicate balance
  - guarantees too weak (no effect) vs. guarantees too generous (implicit public liability)
- Requires: (i) clear eligibility criteria; (ii) capped exposure; (iii) periodic reassessment; (iv) transparency with:
  - (a) policy timeline (clear deadline for fuel switch), (b) database on historic projects, features, performance, costs, (c) pipeline of projects

## **What success looks like**

- Partial but meaningful MFH uptake, improved bankability and standardization, and learning effects that lower risk over time – even if full coverage is not achieved

### **Context**

- Small canton / region
- Very limited administrative and technical capacity
- Low and irregular project volume
- No realistic system integrator role locally

### **Core problem**

- High transaction costs per project
- Lack of local expertise and learning effects
- Private solutions exist but are opaque and hard to assess

### **Public role**

- Canton acts as enabler and connector
- Focuses on access, predictability, and coordination
- Explicitly avoids building local implementation structures

### **Key principle**

- Apply the same risk logic as Case B
  - Keep private discipline intact
  - Use public instruments to address residual risk only
- But outsource framework design and governance

## Institutional setup

- Canton:
  - participates in shared / inter-cantonal guarantee schemes
  - relies on externally defined eligibility rules
  - uses external ESCOs, utilities, or regional providers
- No local project development or asset ownership
- Learning and data shared via inter-cantonal platforms

## Main instruments

- Basic, rule-based subsidies
- Participation in pooled guarantee facilities
- Clear regulatory timelines (e.g. fossil phase-out)
- Minimal but targeted information and advisory support

## Key governance risk

- Knowledge capture by private actors
- Fragmented one-off projects with no cumulative learning
- Mitigation:
  - transparency requirements
  - mandatory sharing of basic project data
  - inter-cantonal exchange

## What success looks like

- **Political and institutional feasibility**, reduced coordination failures, and **material progress relative to inaction**, even if decarbonization remains slower – e.g. than in Case A – and uneven

Merci!

**Hochschule Luzern**

**Wirtschaft**

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# Annex

Swissbau 2026 Mini-Presentation for Renowave SP 3.1 & 3.2

# Innovative Businessmodelle für die Realisierung klimaeffizienter Wärme

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Institut für Betriebs- und Regionalökonomie (IBR)

Renowave SP 3.1 & 3.2

23.1.2026      14:00 – 15:00

**Wirtschaft**



# Inhalt

1. Hintergrund
2. Ernüchterung Finanzierungsmodalitäten
3. Öffentliche Hand als Orchestrator
4. Provokative Frage: Wärme in alten Gebäuden als Service Public?

# 1. Hintergrund

1. Neue Einfamilienhäuser:  $\approx 80\%$  Wärmepumpen (WP)

## 2. Alte Gebäude: Kaum Renovation; kaum «Fuel-Switch» (Fossil $\rightarrow$ WP)

Extrem hohe Energieverschwendung (kaum isoliert)

3. Denkwürdig: **Hypothekenvergabe restriktiv**, dabei:

- Kaum Ausfälle
- Energetische Renovation: gesellschaftlich eh kaum was zu verlieren!

4. Mehrfamilienhäuser: **Fuel-Switch (technisch) überraschend schwierig**

1. Kapitalintensive, riskante Investments
2. Fehlanreize (Mieter-Vermieter Dilemma)
3. Technisch sehr komplex, dürftige Marktstrukturen

## 5. Renowave 3.1 & 3.2:

1. **Fehlt es an Finanzierungsmöglichkeiten?** Welche könnten helfen (EFH)?
2. Wie kann **fehlendes Markt-«Ökosystem» öffentlich unterstützt** werden (MFH)?

Partner: Zahlreiche Geldinstitute (Banken, ...), Stadtwerke, NGOS/Spezialisten, Behörden

## 2. Ernüchterung Finanzierungsmodalitäten: Keine «Silver Bullet» in Sicht

1. Risikoprämie Hypotheken gering; Reduktion kaum vielversprechend
2. Extrem vereinfachte «Handsclag-Hypothek» Schwyz: Sogar dort nur sehr begrenztes Interesse
3. Umfrage Hausbesitzer (EFH & MFH): Andere Hürden öfter genannt als Zugang zur Finanzierung  
Inkl.: «rechnet sich nicht»!

1. Banken, Behörden: Interesse sehr begrenzt
2. 'Nachhaltige Hypotheken': Viele, aber eher kosmetisch

Provokative Hypothese: «Hand aufs Herz: Die meisten Hausbesitzer, wenn es sich *wirklich* lohnen würde, und sie es *wirklich möchten* – vielleicht könnten sie die Finanzierung schon zusammenbringen?!»

**Fazit Finanzierung: Ernüchternd!                    Alleine werden Hypotheken-Modalitäten nichts drastisch ändern**

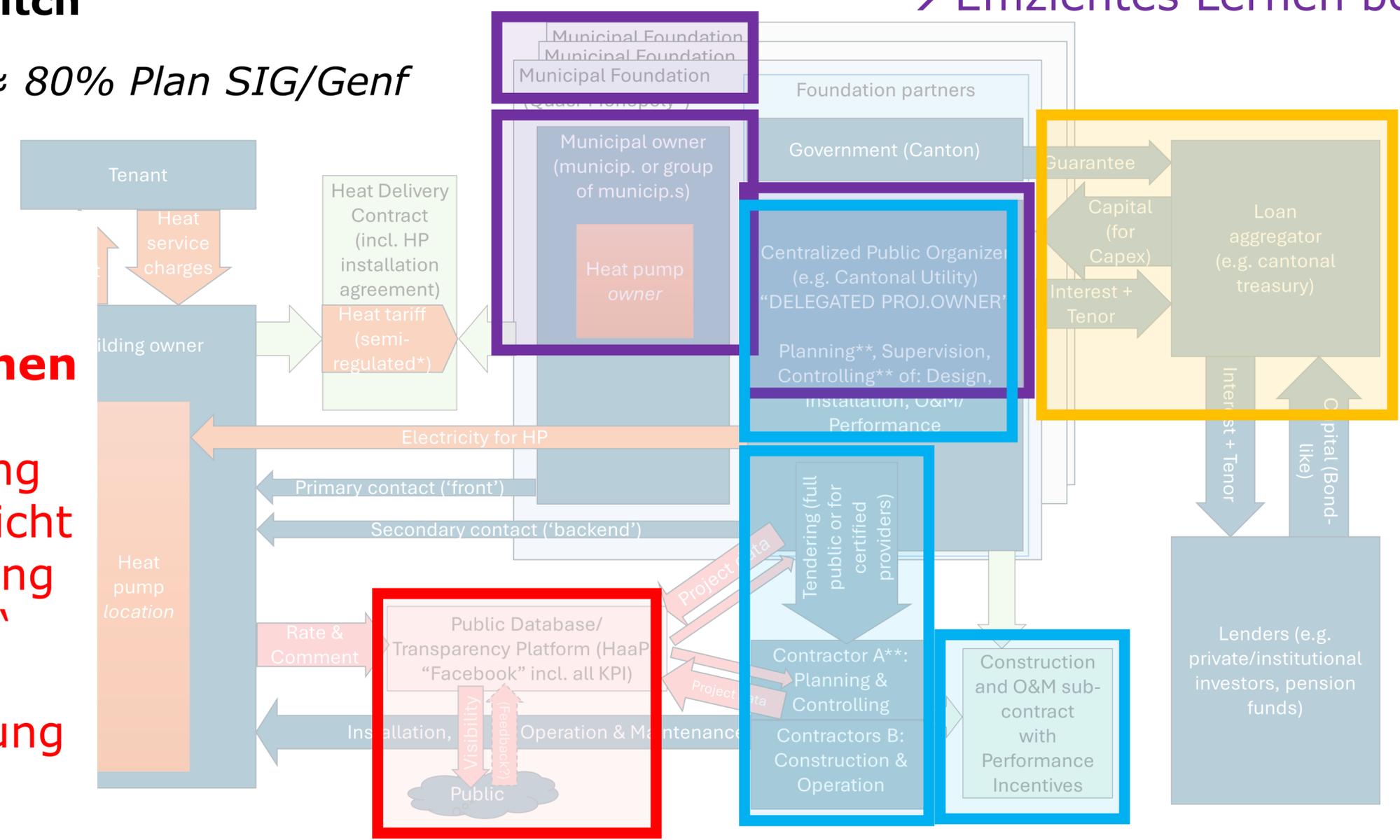
**Am ehesten: «Paketlösung mit Beratung» - angesichts der vielen Optionen und kt. Förderunterschiede**

3. Öffentliche Hand als Orchestrator  
**Wenn Stadtwerke, Kanton & Gemeinden zusammenspielen: Vielversprechende Lösung MFH Fuel-Switch**

**2 Lokale Verankerung kombiniert mit zentralisiertem Lernen in reproduzierbarer Lösung**  
 → Kenntnis lokaler Gegebenheiten; Fallstricke; Kundenbeziehung  
 → Effizientes Lernen bei komplexer Materie

Illustration entspricht ≈ 80% Plan SIG/Genf

**4 „No-Excuses“**  
**Transparenz, gegenseitiges Lernen**  
 → Fördert Marktentwicklung  
 → Rechenschaftspflicht  
 → Vermeidet „picking (bad) winners“  
 → Vermeidet Tarifdiskriminierung



**1 Garantie + Aggregation:**  
 Risikofreie & Low-Cost Finanzierung

**3 Zentralisiertes Lernen** kombiniert mit **wettbewerbsorientierter & incentivierter technischer Umsetzung**

## 4. Provokative Frage: Wärme in alten Gebäuden als «Service Public»?

Feststellung:

1. Ursprüngliche Idee Genf: *vorübergehende* Marktentwicklung

Aber:

2. Genf zeigt: Will man Heizungersatz (Fuel-Switch) umsetzen: **Öffentlichkeit muss kräftig anpacken**

3. Politik will **Fossile Wärme verbieten – aber will nicht die hohen Marktpreise**, die dazu führen würden

4. Einem Besitzer alter Gebäude, bleibt **nur sehr wenig unternehmerischer (Heizungs-)Spielraum**

**5. Gewisse Gebäude profitieren von öffentlichem Wärmenetz-Anschluss, andere «dürfen» nicht**

6. Zudem viele Gebäude (auch weniger 'besondere') von **Heimatschutz** tangiert; abermals verkompliziert<sup>1</sup>

Frage an uns alle:

- Wollen/müssen wir da überhaupt noch auf Markt pochen?
- Wärme in alten Gebäuden **besser als Quasi «Service Public» verstehen?**
  - Fuel-Switch nicht mehr frei gewählt
  - Fuel-Switch zentralistisch gesteuert (Genf)
  - Tarif: Teil-Sozialisiert: Bei zu hohen Kosten, Wärmetarif kappen?



Mögliche Fehler sind nur die von Florian Habermacher

# Merci!

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Dozent

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