

TIMEPAC

Academy

Session 1

Re-Commissioning: Creating Awareness and Common Understanding

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22 March 2024



Politecnico
di Torino



What is Re-Commissioning?

Re-Co activities involves systematically evaluating, testing, and adjusting existing building systems to ensure they operate as intended and meet expected performance and standards

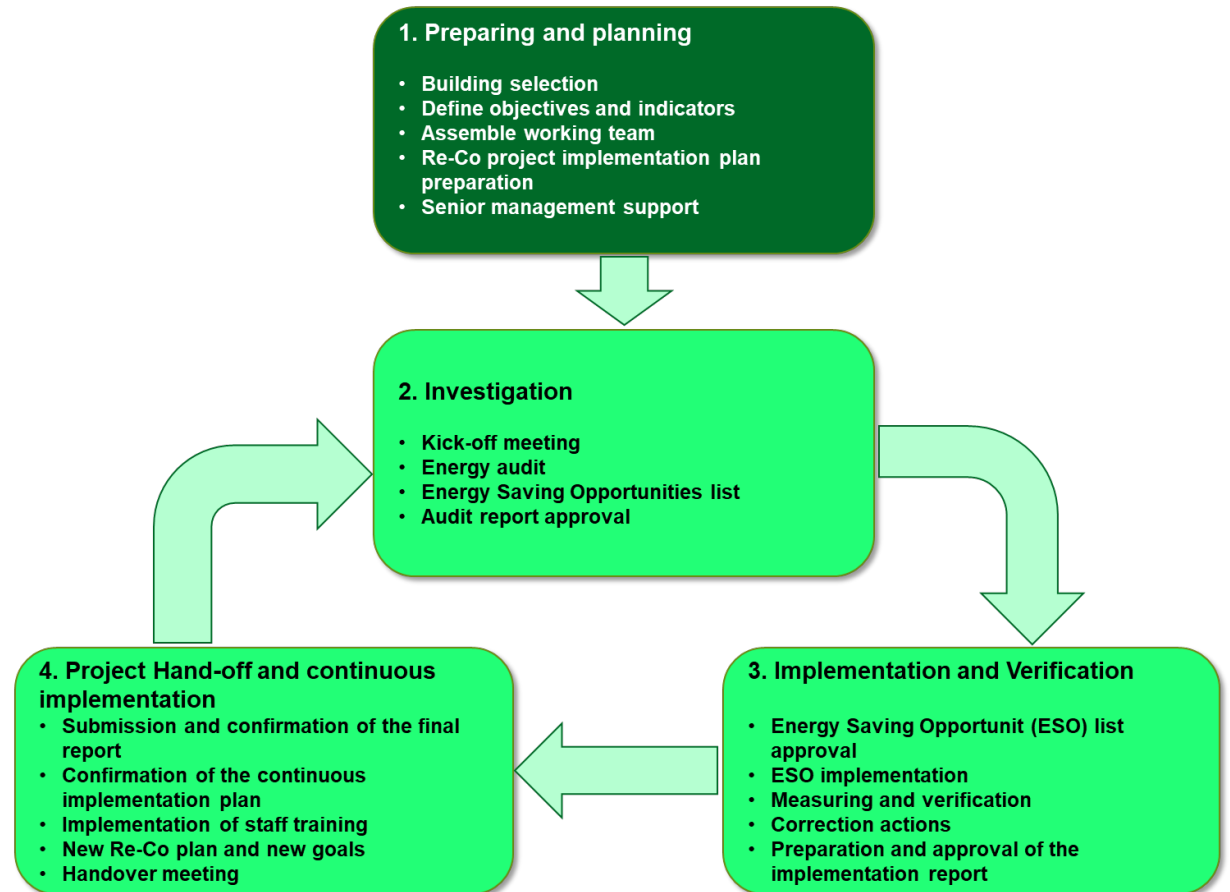
Re-Co purpose - to optimize the performance, efficiency, and functionality of existing building systems and equipment. (lighting, HVAC, control and process systems, equipment, users behaviour ...)

- Improves the building's overall **performance** by optimizing energy efficient design features and directly addressing equipment performance and system integration issues.
- Ensures **knowledge** and **documentation** to building staff to operate and maintain the building efficiently, helps extend the **lifespan** of systems and equipment, raising **awareness** among building users
- Ensures **optimal comfort** by optimizing existing systems for current loads and configuration (reducing user complaints, increasing productivity...)

What are the key steps of Re-Co? (1/5)

Re-Co implementation consists of four related steps:

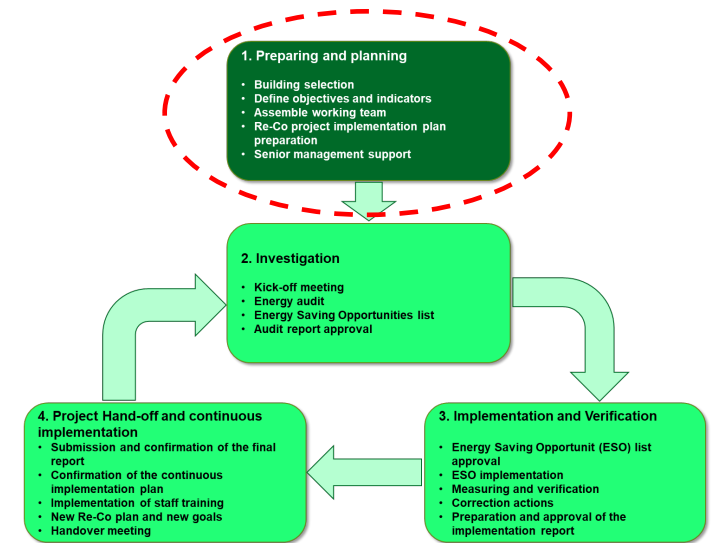
1. Preparing and planning
2. Investigation
3. Implementation and Verification
4. Project Hand-off and continuous implementation



What are the key steps of Re-Co? (2/5)

Preparing and planning:

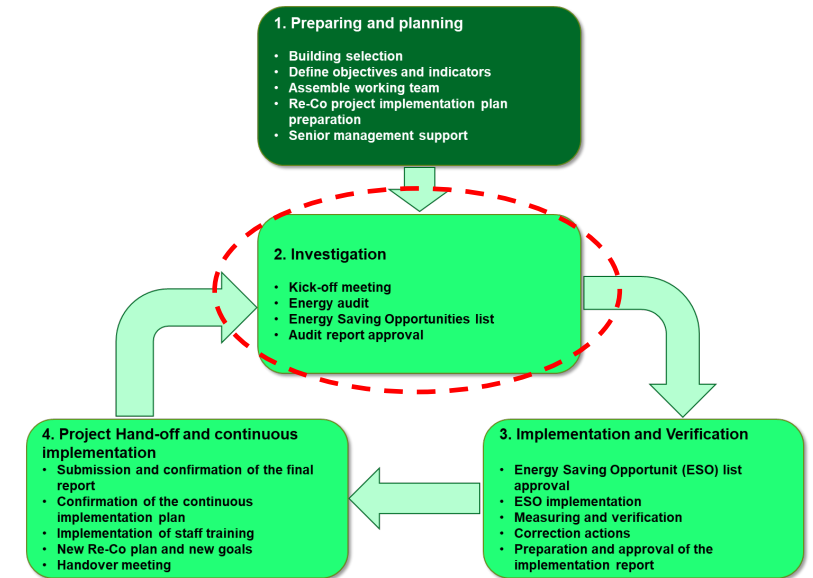
- Suitable building selection (age, condition, complexity, documentation, initial energy performance rating, BACS, inhouse staff, known problems, ROI, walkthrough audit ...)
- Define objectives and key performance indicator (KPI)
- Assemble working team (external contractor, building staff)
- Re-Co project implementation plan preparation
- Senior management support



What are the key steps of Re-Co? (3/5)

Investigation:

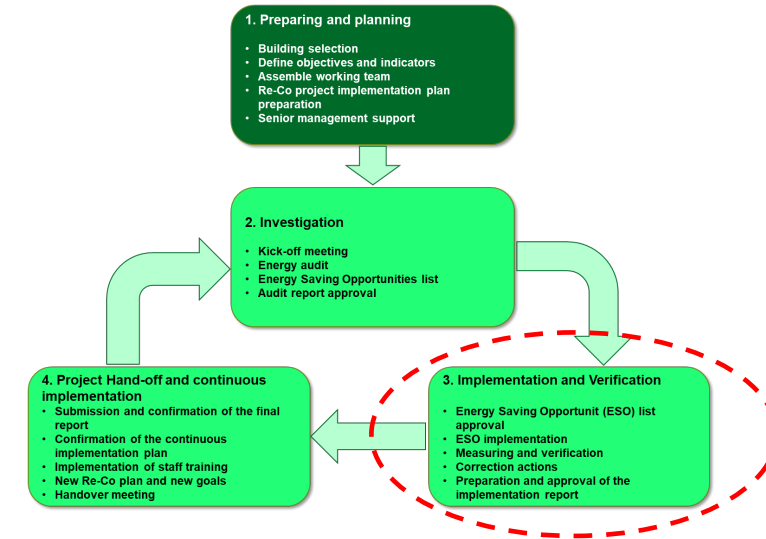
- Kick-off meeting (all teams and building management)
- Detailed energy audit
- List of energy saving opportunities (no cost and low cost)
- Audit report approved by the building representative



What are the key steps of Re-Co? (4/5)

Implementation and Verification:

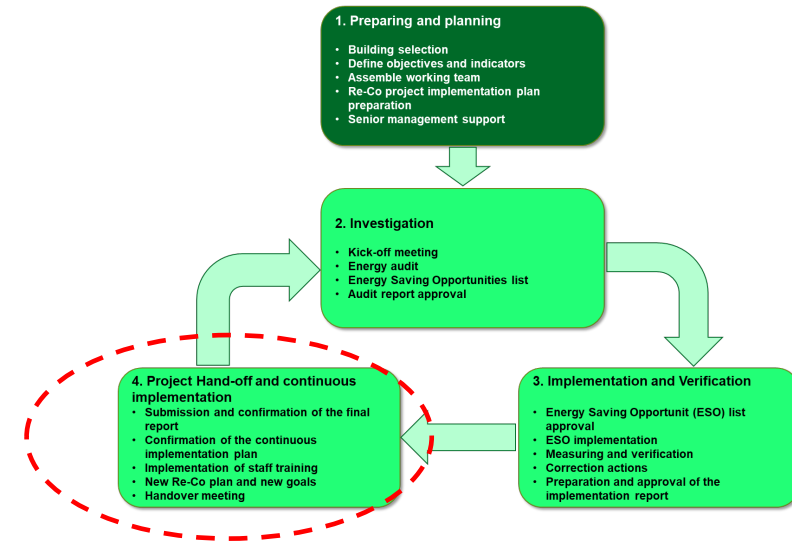
- Approval of selected energy saving measures
- ESM implementation
- Measuring and verification
- Correction actions
- Preparation and approval of the implementation report



What are the key steps of Re-Co? (5/5)

Project Hand-off and continuous implementation/monitoring:

- Submission and confirmation of the final report
- Confirmation of the continuous implementation plan
- Implementation of staff training
- New Re-Co plan and new goals
- Handover meeting



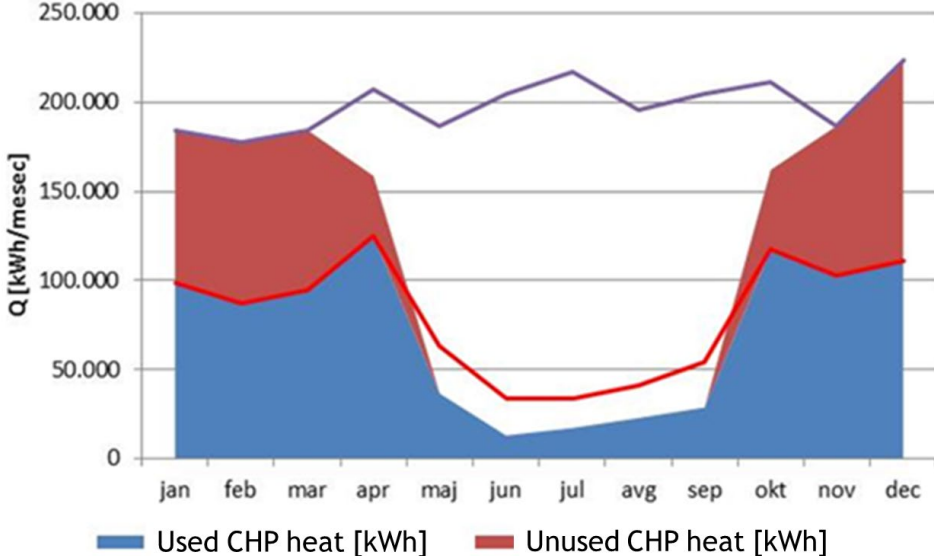
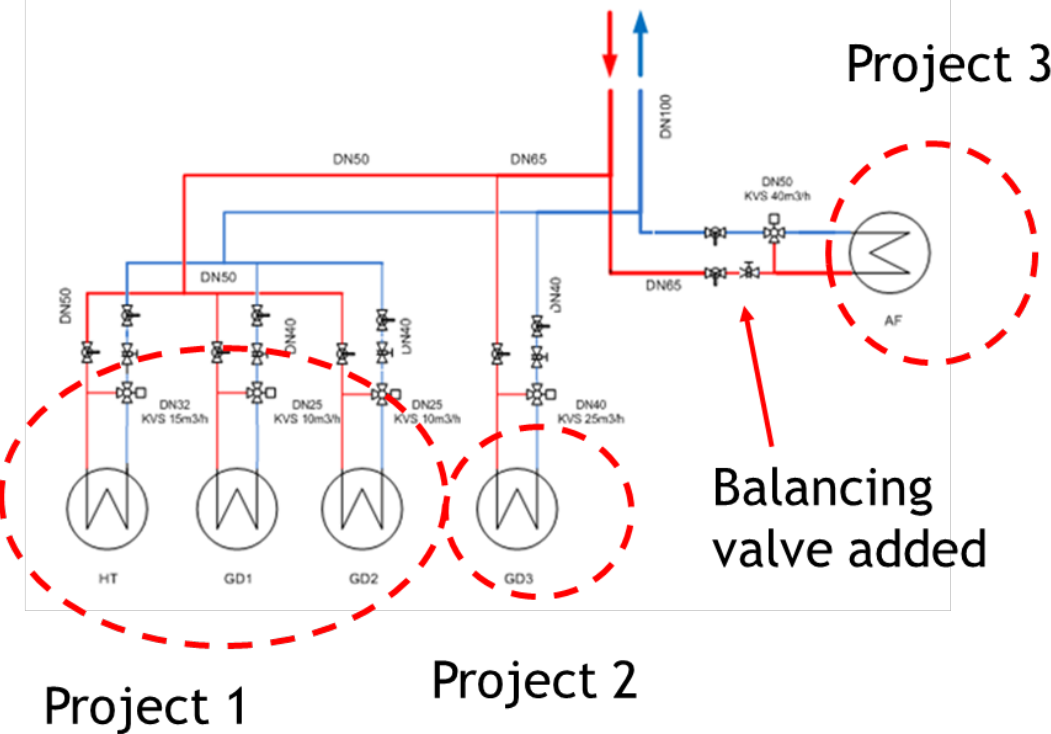
Why to re-evaluate the energy performance of existing technical building systems? (1/2)

Re-evaluate systems is essential for maintaining optimal efficiency, occupant comfort, reducing operating costs, ensuring compliance with regulations, and minimizing environmental impact

- Changes in building usage patterns (different users, operational schedules, room purpose...)
- Wear and Tear of equipment (decreased efficiency and performance)
- Poor initial design

Why to re-evaluate the energy performance of existing technical building systems? (2/2)

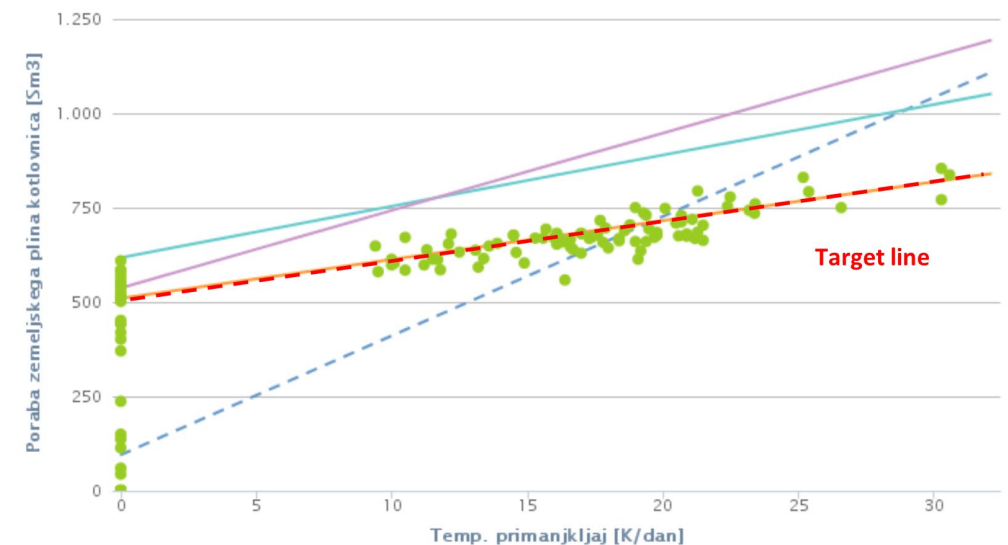
Hydronic balancing valve



Why is target setting crucial for the overall success?

Target setting is essential for guiding, measuring, and evaluating the success of any energy efficiency project

- Must be understandable to all participants and feasible
- Clarity of objectives - provides clarity on the project's objectives and desired outcomes
- Measurement and evaluation - targets serve as benchmarks
- Responsibility - sets personal responsibility and commitment for achieving energy efficiency goals
- Motivation - well defined targets can motivate and engage stakeholders



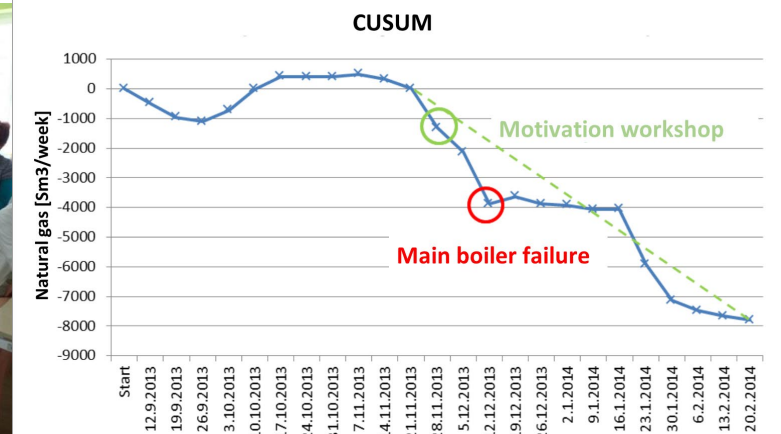
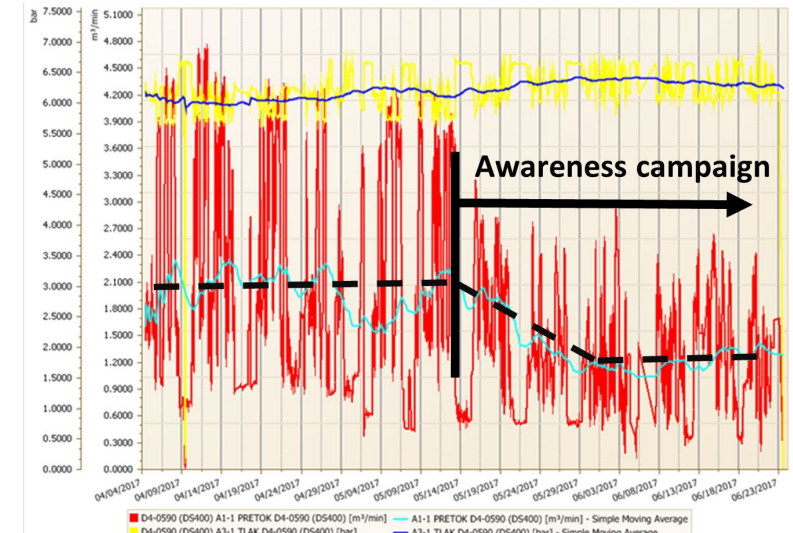
Why do we need training and how do we initiate awareness-raising activities?

The human factor has a great impact on energy performance

- Skill and knowledge development (enhance the capacity of staff and users)
- Behavioural changes (encourage technical staff and users to adopt energy efficient practices)

How to do it?

- Identify target audience!
- Signs, billboards, posters, interviews, workshops, specialized technical trainings
- Evaluate effectiveness and promote incentives and rewards
- Should be carried out periodically to ensure the ongoing impact!



**If you would like more information,
please visit www.timepac.eu or contact us at
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Thanks for your attention!