

Check list for small port energy efficiency status evaluation and tips for future actions

In your port, have the following actions been done (OK), are not done (NOK) or are not applicable for the port (N/A)?

OK NOK N/A

Action list 1

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ability to monitor energy consumption (necessary monitoring tools/systems, know-how). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Energy supplier online service is used for regular, hour level consumption follow-up (Not real time data). |

Action list 2

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Real time energy meters have been used or installed for practical and better consumption measurements. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The electricity profile and biggest consumption points have been identified (What?, When?, How much?). |

Action list 3 (easy and inexpensive actions)

Water

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hot water boilers are well insulated. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hot water boiler temperatures have been adjusted to proper temperature (good range is 55–60°C). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hot water pipelines are well insulated for heat leaks. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Water pressure has been adjusted for proper water flow of faucets (shower, kitchen: 12 L/min, other: 6 L/min). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hot water usage is controlled (5 min shower consumes c. 2.5 kWh of energy). |

Cooling & heating

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Heating settings of the buildings are adjusted for season/off-season times |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Excess cooling of spaces is avoided. Note. In summer comfortable indoor temp. can be even 25°C. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Different shading solutions are used for blocking the excess heat load of the sun. |

Maintenance works

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Refrigeration equipment are installed with good air circulation and checked for working temperatures . |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Back cooling units of refrigeration equipment have been cleaned regularly. Noting also the fire risk. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Mechanical ventilation has been checked for seasonal setups and new filters. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Tightness of windows and doors has been checked for leaks before heating (and cooling) season. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Unnecessary (seasonal) devices (defrosting cables, heaters etc.) has been checked and switched off. |

Guidance & planning

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Educating and motivating staff and customers about energy efficiency has been planned and implemented. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Planning for the future energy efficiency investments has been done. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Different options for financing energy efficiency investments have been checked (e.g. EU development funds). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Different port fees have been checked and inline with the energy consumption, services and their costs. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The potential for solar energy use has been clarified (production-consumption match, payback time). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The idle use of saunas and kitchens (as big consumers) has been minimized with planning. |

Action list 3 (potential bigger investments)

Lighting

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All indoor and outdoor lighting has been updated to more durable and energy efficient LED solutions. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Lighting is combined with presence/twilight sensor and 'partial power use' automation. |

Solar energy

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Solar power has been installed to compensate high season electricity consumption (see reverse side example) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | In case of high hot water use, solar thermal system has been installed for heating hot water (and space). |

Heating & cooling

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Heat pump(s) has been installed for space heating and cooling. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Good insulation has been implemented when building new heated space, esp. for saunas. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Household appliances & equipment |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The best energy class equipment has been bought when updating old equipment. |

