



## *Advisory Model*

## *Scenario for Energy*



LEAD PARTNER

PARTNERS

# Title: Advisory Model Scenario for Energy

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# Advisory Model Scenario for Energy

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## Advisory Service Model Scenario for Energy



## 1. Company – Advisor Check-in

This step may overlap with steps 1 and 2 of the general scenario. By this point, the advisory team likely have an overview of the company including work procedures and material uses. Therefore, they have a background to move forward themselves, or inform a third member (in house or external consultant) specialized in energy issues about the company profile.

Moreover, at this point the company has expressed the interest in working with energy related issues/innovative solutions. However, the company may or may not have a specific solution in mind. The company interest could be clear and focused, for example “we want to install solar panels on the roof”, or just generic, “We would like to use renewable energy” or “we would like to be more energy efficient in our operations”.

In any case, this is a good time to verify expectations, such as:

- What kind of support is expected from the advisor?
- What would they like to achieve by working with energy? (quantitatively and qualitatively)
- What is their investment level at this time. (financial and not)

Finally, check the availability and extent of energy data available.

- Is it possible to break down the energy consumption in months, weeks or days?
- How many meters are in place? I.e. Is it possible to have an overview of energy consumption according to different systems?

- For example:
  - Lighting
  - Heating/Cooling
  - Ventilation
  - Electricity (plug in)
- OR
- According to Different section of the building(s)
- Etc

Gathering such data help to determine a more specific benchmark, but it may be easier later on to evaluate progress.

## 2. Energy Round

Even if the company has already decided on a specific solution, having a general energy round may be beneficial to:

- Provide a current overview of the different energy areas
- Provide a road map of potential improvements
- Support to prioritize areas and make quick improvements

To this purpose, we suggest the “Energy Advisory Check List” at the end of this document, with questions about different areas related to energy. If necessary, it may work as an entry point for a specific area, in case the business is not interested in the overview.

The check list is supposed to cover different types of business. The questions can be used as a way to keep a dialog about “the current CE initiatives related to energy”, as well as finding potential development within the energy related areas. The advisor shall adapt it to its current context.

### 3. The nitty-gritty of an energy solution

This step is about going through the general challenges and steps required to implement a desired solution.

The degree and scope of the innovation required will define how such clarification will happen. For example: If the desired solution is something completely new, it may require research and development – thus applying for innovation and research grants, may be a way forward. At the opposite end on the spectrum, if the desired solution is a standard commodity in the market, but an innovation to the company (or in the sector) being advised, will require more compare different technologies in regards to their cost and efficiency.

The general advisory here is about providing a way that helps the company to understand “How to move forward” in a given technology area.

- What to consider when going after a given solution
- Comparison between different existing technologies
  - Efficiency
  - Maintenance
  - Durability
  - Procedure and implementation challenges
  - Sustainability of the material
- Reference point for cost and
- Potential Return on Investment
- Cases and contacts for both, existing technology as well as, for the development of solution when the solution or technology is not yet existent, nor it has a winning design.

## 4. Follow up and support

The companies may have not the time, staff or resources (or the engagement at the beginning) to keep up with the learning curve nor follow up with the contacts, and networking required after an advising.

In any case, however, such follow up and support is essential to provide a dynamic and organic deepening of the advisory services towards the implementation of innovative solutions. Moreover, it can be also a way to keep new innovations going based on the overview and potential improvement areas from the energy round.

## 5. Documentation

Documentation is a good to register progress and be able get back to speed in relation to a client profile after a long period of time. We suggest that documentation could have the following topics:

- What was the original interest and how it has evolved
- General summary of advisors feedback
- A road Map including next steps (when applicable and possible)
- What to consider about the solution/possibility in focus
  - Benefits
  - Challenges
  - Costs and return (in general)
  - Contacts with other experts and service providers
  - General opinion about their desired solution (inquiry)



## Energy Advisory Check list

The list is generic in a sense that it is supposed to cover different types of business. The questions can be used as a way to keep a dialog about what is the current initiatives, as well as finding potential development areas.

### A. Consumption and production

- Is there a procurement of renewable energy in place? (if possible)
- Does the company supports development of clean energy? (if available)
- Is there any production of energy from renewables for self-consumption?
  - Is there potential to Connection to the grid (prosumer)?

### B. Building Envelope et al

- Does the company have a thermographic analysis?
- Is the roof well insulated?
- Is the external façade properly insulated?
  - Is there natural/ reusable /recyclable material in insulation?
- Cold wind breakers like trees on the outside help insulating?
- Are the windows sealed (although breathing) and up-to-date technology?
  - If not, Is there a plan to update them at end of their current life span?
- Are there blinds and shades to cool the building down?
  - If yes, are they working properly?

### C. Heating

- Is the heating system properly maintained and functioning smoothly?
- Is the indoor climate optimized?
- Can the heating in different areas /elements be adjusted?
  - For example with thermostatic valves
- What is the source of heating?
- Increased efficiency in heat exchanger
- Can solar panels be used to capture the heat?
- Is there any structure in the building used to store and release heat?

## D. Ventilation

- Are the ventilation needs-driven?
  - According to the number of people in the room
  - According to sensors for CO2 levels
  - According to opening hours
  - etc.
- Is there heat recovery?
- Are the pipes insulated?
- Is the amount of air flow required adjusted?
  - Is there a noticeable pull (pressure difference) when opening door and windows?
  - Is there a noticeable pull in any of the ventilation roles?

## E. Electricity

- How many appliances are in stand by (on simply on, even when not used?)
  - For example: TV, kitchen equipment (ovens, deep fry)
- Are the appliances energy efficient?
  - Is there a thinking about prioritizing such appliances in future purchases?
- Are the equipment shutdown, as opposed to run all the time?
  - Such as, computers, TV monitors, sound system, projectors etc.

## F. Lighting

- Are there energy efficient light sources?
- Is the placement of the lights/lamps efficient?
- Are the luminaires clean? (so they work efficiently)
- Are there different sectioning for the different types of light required?
- Is it in a suitable brightness?
- Is it possible to adjust (e.g. on/off or dimmer) the different lamps (groups) individually?
- Does it have presence control?
- Is it viable to consider daylight sensors?

## G. Cooling

- Is the cooling system energy efficient and well regulated?
- Is it possible to recover heat from refrigerators?
  - Is it positioned away from heat sources?
  - Is it in the cold side of the building? (if applicable)

## H. Hot water

- How long does it take to get hot water from tap/shower?
- Are the hot water pipes well insulated?

## I. Soft actions

- Are the employees aware and engaged in energy saving behaviors?
- Are guests who influence energy consumption engaged?
  - Length of shower
  - Frequency changing towels
  - Using natural and biodegradable products
  - etc

## J. Energy Management System

- What are the systems to visualize energy use?
- What kind of system would be necessary in relation to the space?
- What are the current and future possibilities regarding energy control?
- Are the operating hours of the different energy related system adapted to the business hours (low/pick and closing)?

Example: Lights night setback, vents "slow" etc

## K. Transport

- Are there any criteria placed for suppliers and deliveries?
  - Distance to source
  - Type of fuel used and eco-driving certificate
- What are the types of internal/staff transport vehicle type and fuel
  - Is eco driving a known among staff?
  - Is the logistics thought through?
    - Minimal amount of trips and consolidated logistics
- Are customers informed about eco-friendly transport means of transport?

## L. Waste

- How are the plans related to waste?
- Is there potential to use any of the waste in other production cycles?  
For example:
  - Food left over, as compost
  - Ashes as fertilizer
  - Used Coffee powder to grow mushrooms
  - etc
- Is there a recycling scheme in place?
- Is waste used as potential energy source?

## M. Water economy

- Minimizing water use
- Is there a recovery heat exchange?
- Is the water possible to be reused?
  - Such as: sink water that is used in toilet or in the garden?
- Is there a filtering system in place?