

# Karno Energy BIM

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The climate goal set by the London Treaty and the resulting energy agreement are causing big changes in the building world. Sustainability is becoming a major topic for all builders <https://karnoenergy.com/>. However, the challenge is so great that builders can no longer keep up with this demand. Material suppliers are also increasing delivery times and raising prices.

This changing market and the major challenge facing construction companies requires a professional approach to projects. Major construction companies have developed BIM to streamline their processes. This makes BIM a household name in the construction world. However, at the moment it is only available to large construction companies. Karno Energy expert decided to make the company professional and gradually introduce BIM process components. To do this, 2 HTS students were brought in to graduate with the question, "How can BIM be used in medium and small construction companies?"

## Implementing BIM at contractor Karno Energy

As a construction company, Karno Energy is anticipating this development by streamlining a number of topics in the construction process. This will improve the construction and administrative process. Building information modeling concepts and methods are used to implement this. At Karno Energy we work with suppliers as

network partners. This means that suppliers are directly involved in the construction process when it comes to planning and delivering materials. This cooperation already takes shape in the quotation process. In this way, the client receives a realistic quote.

The advantage of this method of working from Karno Energy for the customer is that they are always aware of price changes, delivery times and therefore the scheduling of execution. This minimizes disruptions in the construction process.

## **Karno Energy: Modeling**

Karno Energy BIM is the process of creating and using digital models in construction projects. These models play a central role in the design, implementation and use of buildings.

The exchange of information between the various construction partners (architect, builder, installation consultants, etc.) is accomplished through a model in which buildings, structures, and facilities are modeled.

At Karno Energy we call this modeling because it is more than just drawing in three dimensions. All specific information, such as product specifications, as well as design conditions (air volumes, maximum duct sizes, media velocities, etc. etc.) are written into the models.

In this way, simulation and design are performed simultaneously.

## **Karno Energy: Open BIM**

Karno Energy uses Autodesk Revit software. You can exchange information with architects and builders in your own Revit environment or according to the IFC standard. At Karno Energy we also link simulation software (VABI, Sefaira) and special calculations with building models, such as ventilation and lighting

calculations. If the architectural model meets certain criteria, the technical principles and comfort requirements of the Technical Requirements Program can also be integrated into the model. This establishes starting points at the spatial level and can be checked for completeness during the implementation and management phases. In addition, ventilation, installation calculations and various counting statistics for pricing can be integrated into the model.