

## Case (8) Green resort utilizing regional natural resources (Hoshinoya Karuizawa)

- This project succeeded in reducing seventy percents of carbon dioxide by measures for energy saving utilizing regional natural resources including introduction of the heat pump system that uses the earth thermal and waste heat of the hot spring as heat source.
- It could collect the initial investment in equipments for energy saving in twenty months based only on reduction effect of utility costs.

Name: Hoshinoya Karuizawa

Location: Karuizawa-machi, Kitasaku County,  
Nagano Prefecture

Contractor: Hoshino Resort Co., Ltd.

Category: accommodation



Exterior of the building

Source: material provided by the Hoshino Resort Co., Ltd.

### [Efforts for improving the environmental performance]

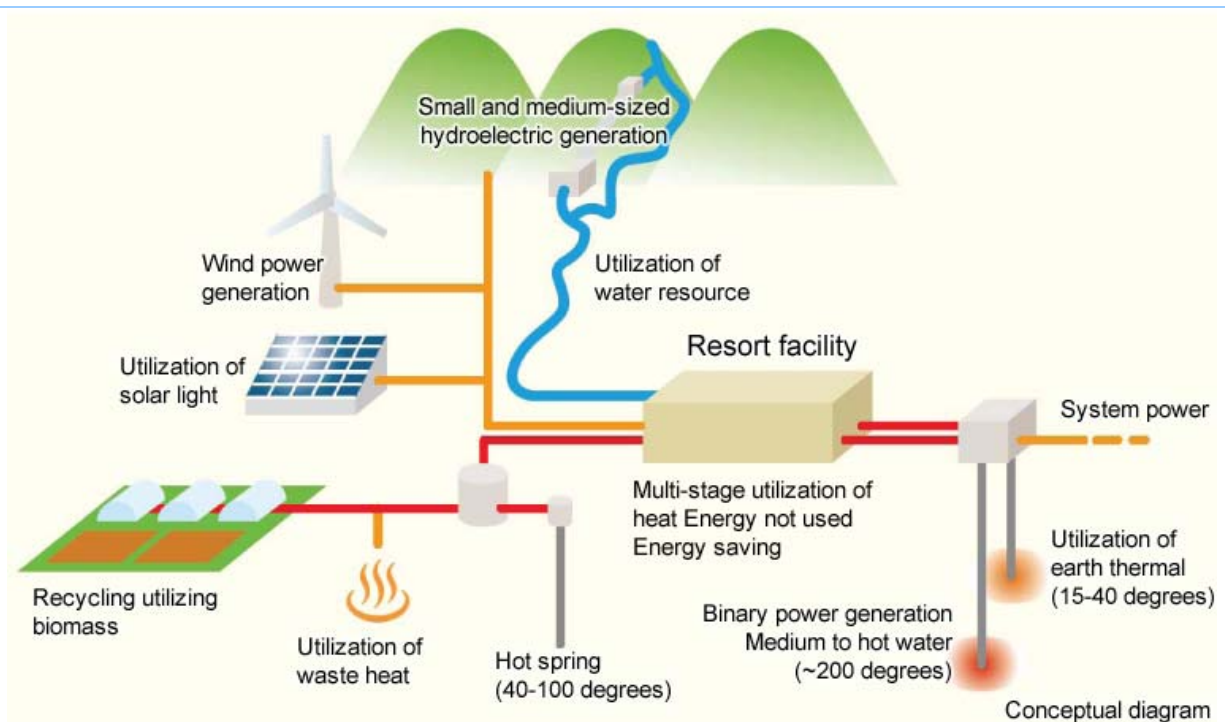
Hoshinoya Karuizawa (Hoshino Resort Co., Ltd.) is a resort facility founded in 1903 and renovated in July of 2005.

Hoshinoya Karuizawa's concept is "EIMY (Energy In My Yard)" and aims to rely on energy gained in their site. 75 percents of the energy they consume are natural energy like earth thermal, waste heat of the hot spring and hydroelectric generation. They use the heat pump method with earth thermal and waste heat of the hot spring as heat source for air conditioning and providing hot water. Some part of its power is driven by the hydroelectric generation. They implement optimal combination of natural energy by considering the natural conditions in the region and have achieved energy consumption reduction by 55 percents and reduction of carbon dioxide emission 70 percents.

They recognized the importance of the highland climate in Karuizawa for suppressing the energy usage and built a wind tower on the roof. The natural ventilation by the wind tower they could decrease the room temperature in summer in the evening and night by about two degrees Celsius (measured value). So a comfortable space is created while suppressing the energy usage.

Profitability has been taken into consideration when introducing such energy saving measures. Measures for shortening the number of years for collecting the initial investment including optimal combination of natural energy and suppressing the capacities of equipments by introducing heat bath have been applied to the facility. In the planning phase, they estimated the initial investment to be collected in five years. After starting the actual operation, they could collect the initial investment in only twenty months partly because of rising of the oil price. Such results showing profitability promote further environmental measures and enable the realization of green resorts.

Besides such energy saving measures, they are working on measures against wastes and for eco systems. As for wastes, they work on recycling wastes and introduced HACCP (Hazard Analysis and Critical Control Point, process control system for food sanitation developed in USA) in 2001. They have achieved the reclamation rate of 76 percents. As for measures for eco systems, they are implementing their green land plan to keep the trees that existed before the renovation and restrict the trees they plant to the native species of the region.



**Conceptual diagram of EIMY**

Source: material provided by the Hoshino Resort Co., Ltd.

### [Relation with stakeholders]

#### (1) Constructor

Regional natural resources are one of the important management resources, and how to handle the environment is a problem that is directly connected with the sustainability of the company. The proactive actions related to the environment including measures for energy saving at this facility maintains the sustainability of the resort facility and improves the corporate image.

The energy saving measures at this facility that care also for the profitability will contribute to the middle to long range increase in profitability based on the reduction of utility costs. So the risks due to rising oil price and the like can be avoided by increasing the energy self-sufficient rate.

#### (2) Investors/Financial institutions

When introducing energy saving measures, reducing the load of initial investment is an issue, but in this case early collection of initial investment was possible due to the energy saving measures that takes profitability into consideration. So an energy saving measure that does not decrease profit has been implemented.