



# **Approval of the Hydropower Plants of Nembia, Novaline and Grottole**

## **Decision and background information**

**March 2015**

### **Multiutility hydropower plants**

The Nembia power plant and the Novaline and Grottole control units are operated by Gruppo Dolomiti Energia, and they are all located in the Italian alpine area of Trentino Alto Adige.

In autumn 2014 Multiutility, an Italian renewable energy supplier, became interested in selling EKOenergy. In the following months Multiutility signed the EKOenergy Licence Agreement and became our first Italian Licensee. The company is now ready to start selling EKOenergy labelled electricity. Multiutility has provided us with a list of hydropower plants, and after a period of research, analysis and consultations the EKOenergy Secretariat has selected 3 power plants which are suitable to sell EKOenergy.

The selected power plants are the following:

- Nembia;
- Novaline;
- Grottole.

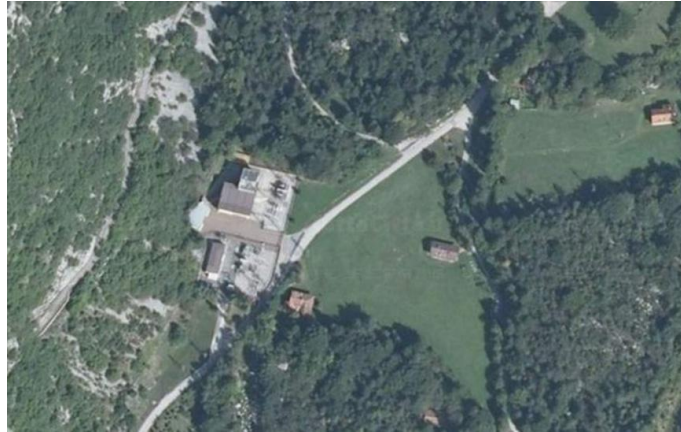
### **Summary information about the power plants**

#### **1. Nembia**

##### The power plant

The Nembia power plant is a tunnel plant in the municipality of San Lorenzo in Banale. It was built in 1957 and today it is operated by Gruppo Dolomiti Energia. The power plant ensures a minimum flow of 17%. There is a flow of 25 m<sup>3</sup>/sec, and a head of 71 m. Its capacity is 14.5 MW. Its average annual production is 42,6 GWh.

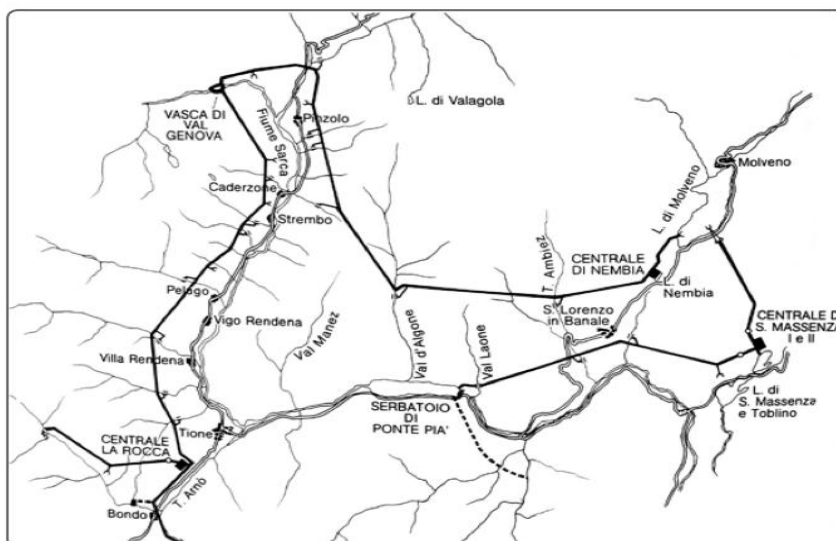
**Figure 1. The Nembia power plant and its surroundings.**



The power plant is located in the basin of the Sarca River. It is part of an extensive system of power plants built in the second half of last century by SIM (Società Idroelettrica Sarca e Molveno).

The water from the Sarca River and its tributaries is collected in the Sarca-Molveno underground pipe, and it flows until it meets the Nembia flow separator. From there, most of the water flows directly towards Lake Molveno, while some water is diverted towards the Nembia power plant. Once the water has passed through the Nembia turbines, it flows towards Lake Molveno. Lake Molveno works as a water reservoir, ensuring the permanent operation of the large neighbouring Santa Massenza hydropower plant.

**Figure 2. The Sarca hydropower plants network.**



Other bodies of water in the direct surroundings of the power plant:

- Lake Nembia: it partially feeds the Nembia hydropower plant.  
Conditions: a natural lake located 760 m above sea level. It has recently been restored, and today it displays very good environmental conditions. The fish population is monitored and fishing is only allowed with a permit.
- Lake Molveno: it receives pumped water from Nembia power plant.  
Conditions: a natural lake located 864 m above sea level. Its environmental conditions are very good. Since 2009 it has been awarded the “5 Vele Blu” recognition every year, which is the maximum recognition for sustainable tourism and environmental quality, protection and conservation levels, issued by Legambiente and Touring Club Italiano (TCI). The lake hosts some rare fish species, and there is a Centre aimed at protecting the indigenous species, while enhancing environmental education.

In recent years, major environmental restoration projects have taken place in the area. This area is part of the Nature Park Adamello-Brenta. Moreover, since 2000 the area between the two lakes (including the Nembia power plant) has been part of a WWF Oasis, aimed at promoting environmental education and restoring the original ecological conditions. The Oasis extends for about 200 hectares and is the result of an agreement between ENEL and WWF.

#### Public consultation and comments

EKOenergy has been in contact with different experts and stakeholders at both local and regional levels, in order to gather information about the environmental impact of the Nembia power plant. Among them, we have actively been in contact with WWF, Legambiente, CIPRA, FAI, Italia Nostra, Mountain Wilderness, OIPA, Fondazione Edmund Mach, Parchi Fluviali del Trentino, Parco Naturale Adamello Brenta, and the projects Recharge Green and Life + T.E.N. (Trentino Ecological Network). No criticisms of the power plant have emerged during the consultations.

## **2. Novaline**

#### The power plant

The power plant is a control unit installed on the aqueduct of Trento, and it acts as a pressure reducer. It was built in 1997, and has a capacity of 0.075 MW.

#### Public consultation and comments

We have been in contact with different experts and stakeholders at both local and regional levels, in order to gather information about the environmental impact of the Novaline control unit. Reactions were positive. Due to the location on the aqueduct, the unit does not have any environmental impact.

## **3. Grottole**

#### The power plant

The power plant is a control unit installed on the aqueduct of Rovereto, and it acts as a pressure reducer. It was built in 2007, and has a capacity of 0.106 MW.

### Public consultation and comments

We have been in contact with different experts and stakeholders at both local and regional levels, in order to gather information about the environmental impact of the Grottole control unit. Reactions were positive. Due to the location on the aqueduct, the unit does not have any environmental impact.

## **Final Decision**

### Reasoning

The research process has proceeded well and has not unveiled any controversies. With respect to the small control units of Novaline and Grottole, since they are built on the aqueduct they do not affect the natural environment in any way.

Concerning the Nembia power plant, the presence of several nature conservation projects combined with the award conferred by Legambiente and TCI represent significant grounds for approval. In particular, we refer to:

- WWF Oasis;
- Adamello-Brenta Nature Park;
- Centre for fish conservation in Molveno;
- Award given to Lake Molveno by Legambiente and Touring Club.

The smooth cooperation with Multiutility is an advantage, and it represents a good opportunity to start selling local sustainable electricity in Italy.

### Decision

EKOenergy Licensees can sell electricity from Nembia, Novaline and Grottole power plants as EKOenergy. This decision is valid until 1st April 2020.

### The Environmental Fund

For each MWh sold as EKOenergy hydropower, the seller pays a contribution to the EKOenergy Environmental Fund. The Fund is used to finance the implementation of river restoration projects. The contributions to the Environmental Fund, resulting from the sales of EKOenergy from Nembia, Novaline and Grottole power plants, could be used for:

- supporting the further development of the WWF Oasis Nembia;
- supporting the conservation activities of the Adamello-Brenta Nature Park;
- cooperation with the project Life + T.E.N. (Trentino Ecological Network).

The final decision on the employment of the Environmental Fund in Italy will be made by the EKOenergy Board, where all the organisations forming part of EKOenergy have one vote. The EKOenergy Secretariat welcomes constructive input and comments from local stakeholders and the public.

For more information about the Environmental Fund and its use, please see the EKOenergy website: <http://www.ekoenergy.org/our-results/environmental-fund/>.