

Tyrol-Adriatic-Project D

4 POWER AND DATA TRANSMISSION LINES

4.1 The roofing of rivers, channels, freeways and roads provides not only ideal conditions for power generation but also for transmitting different types of electric current of various voltages through power lines. This allows for the quicker expansion and/or improvement of the overloaded and insufficient public transmission and supply grid since no additional land is needed. Heading towards the lowlands, rivers become increasingly broader. Due to the stipulated pitch, the roofing will be increasingly higher. It consequently provides more space for electric current transport lines. At the same time, the channel tunnels underneath the main ridge of the Alps and the freeways across the Alps facilitate additional grid connections. The European electricity grid as well as the intra-community electricity market will thus be strengthened.

4.2 The respective lines also allow for feeding the European electricity grid with power generated by the Tyrol-Adriatic power stations - Project A. The high bottleneck output of 3.500 MW and the pump output of 2,000 MW result in a high standard output able to compensate the short-term failure of 2,000 offshore wind turbines. Therefore, said installations can be effectively used to control and safeguard the power supply.

5 TRANSEUROPEAN NETWORKS - T E N -

The Tyrol-Adriatic Projects meet the requirements for being incorporated in the TEN ranking. This applies in particular to:

B the Danube-Tyrol-Adriatic Sea Marine Passage;

C the electrified lanes for electric powered vehicles on waterways, channels, freeways and roads;

D the AC and/or DC power and data transmission lines spanning across rivers, waterways and freeways, which create perfect conditions for the interconnection of power grids and data lines in Europe.

6 FINANCING

6.1 With the proceeds gained from selling the real estate in hillside building complexes at the raised hills created from tunnel mining material:

6.1.1 at the north portal east of Innsbruck (Tirolcity);

6.1.2 at the south portal in between Gargazon and Vilpian (MeBoCity);

6.1.3 at the Garda portal south of Torbole (Gardacity), if the junction Adige-Lake Garda should be realized.

- Depending on the construction progress, said proceeds will be available as soon as one or two years after construction start. It is thus possible to finance a large part of the Danube-Tyrol-Adriatic Sea Marine Passage.

6.2 With the compensation gained from feeding in electricity generated for electric powered vehicles and not directly consumed by the same, i.e.:

6.2.1 by PV film covering on routes of roofed rivers, waterways, freeways, roads;

6.2.2 by the updraft power plants on roofing;

6.2.3 by the hydropower stations at the weirs of rivers and waterways.

6.3 By fees charged for using electrified traffic lanes on roads, freeways and waterways and respective power consumption.

6.4 By making more than 10,000 ha of land in former river basins available for agricultural use.

6.5 By fees charged for the use of parks, sports facilities, tourist attractions and leisure facilities located at the riverside and waterways.

6.6 The multiple use of channel tunnels and roofing of waterways, freeways and roads also allows for allocating the costs to respective forms of usage, i.e.:

6.6.1 PV power generation;

6.6.2 installation of tracks for lightweight overhead railways, road vehicles and watercraft;

6.6.3 transmission of data and electric current.

6.7 The synergies featured by the Tyrol-Adriatic-Project deserve special emphasis. For public institutions like old-age insurances and pension funds, banks and credit institutes as well as for private individuals, this project constitutes an excellent option for safe investments.

7 ENVIRONMENT

7.1 The PV roofing requires idle surfaces only.

7.2 Electricity for e-mobility will be generated directly on the PV roof above, by updraft turbines or hydropower stations as renewable energy. The 500 km of the Brenner route freeway crossing the Alps alone serves to replace 1,000,000 liters of fossil fuel by locally generated renewable energies every day.

7.3 The pollution mainly caused by heavy goods vehicle traffic especially on freeway routes leading through the Alps would abruptly reduce.

7.4 The guidance system integrated with the overhead lines facilitates improved traffic safety.

7.5 Electrified lanes offer the opportunity for private transport or battery-powered busses to drive in the respective lane and – by using a telescope-like current collector (pantograph) – to not only continue their journey being powered by electricity but to also recharge their batteries while doing so in order to gain more independence.

7.6 E-mobility serves to recover braking energy.

7.7 Power transmission lines run through the roofing. Transmission lines interfering with the landscape can thus be demounted.

8 THE FEASIBLE AND PROMISING CONCEPT OF THE TYROL-ADRIATIC PROJECT IS MORE THAN JUST AN ALTERNATIVE TO THE BBT

8.1 The intended **Brenner Base Tunnel**, together with its save and ventilation tunnels, is longer than the **channel tunnel from Inn to Adige**, running through the Alp's main ridge.

8.2 The railway base tunnel requires the construction of new access routes north and south of the BBT. Valleys and communities are thus separated and exposed to noise pollution, which is the reason why routing is also demanded for access route tunnels. This will result in additional routes that are several times as long as the BBT.

8.3 As high-speed line, the **BBT** is not qualified for mixed traffic. Traffic experts thus doubt that the BBT will serve to relieve the heavy traffic on the Brenner freeway. The common goods and passenger traffic would have to be transacted on the existing Brenner route as is the case by now. Consequently, any reduction of the environmental pollution caused by vehicle traffic – and in particular heavy goods traffic – is not in sight.

8.4 The rating of the railroad line Berlin-Palermo including BBT as TEN-T- EU scheme of priority took place in 2004, i.e. at a time when the Tyrol-Adriatic Project concept (which generates the following innovations) did not yet exist.

8.5 The **Danube-Tyrol-Adriatic Sea Marine Passage** creates the condition required to shift a large part of the goods in traffic between northern and southern Europe from road to inland shipping. **As an indirect result thereof, the environmentally friendly transportation of goods on Europe's waterways will increase as it will then be possible to travel also larger distances on inland waterways without any interruption and to access the Adriatic Sea, which is a gate to the southern parts of the world.**

8.6 The **lightweight suspension or overhead railroad** itself as advanced, safe and budget-friendly means of transport. It does not require any additional land, as it passes through the 78 km long Alpine Channel Tunnel and runs in the roofing above existing traffic routes such as waterways, freeway or in the open air above roads all the way into respective city centers. It can help to improve the quality of heavy goods traffic and might be a good **incentive to change from passenger car or even airplane** to this transport means. It will furthermore also be able to outperform the results expected from the BBT.

8.7 The use of electric powered inland ships, road vehicles or overhead railways will without a doubt cause enormous savings in fossil fuels and respective reductions in CO2 emission, noise pollution and pollutant loads – to a far greater extent and within less time as expectable from BBT and railroad.

8.8 That means, before any further railway lines are built to cross the Alps, the first linkage between European inland waterways and the Adriatic and Mediterranean Sea should be established. Likewise, the Tyrol-Adriatic-Project with its Alpine Channel Tunnel should be realized instead of the BBT.

8.9 The overall project will cause change, in particular with respect to a step towards more human and environmentally friendly traffic. Natural resources will be

incorporated and integrated with a concept and contribute to progress all across Europe.

Revision of Projects C and D as of: January 2013

Project Ideator & Manager
Albert Mairhofer