

## AZPROMO PROJECT PLAN

### PROJECT: Pirallahi Wind Power Station

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## 1) Background and Sector review

### Alternative Energies in Azerbaijan

Alternative Energy accounts for 10% of electricity production, but the Ministry of the Energy, and the the State Agency on Alternative and Renewable Energy Sources (SAARES) want to increase this up to 20% by 2020. It wants to raise over \$7bn in alternative energy investments and to increase total renewables capacity to 2,000 MW.

Hydropower is the most developed alternative energy source, and has the biggest potential to help the nation reach the 2020 target. It accounts for 9.8% of the country's entire electricity production, and Azerbaijan's rivers have the ability to generate 16 billion kWh of economically viable power. In November 2014, the second unit of the Sheki Hydropower Station was launched, with equipment from the Chinese company 'Hunan Allonward'.

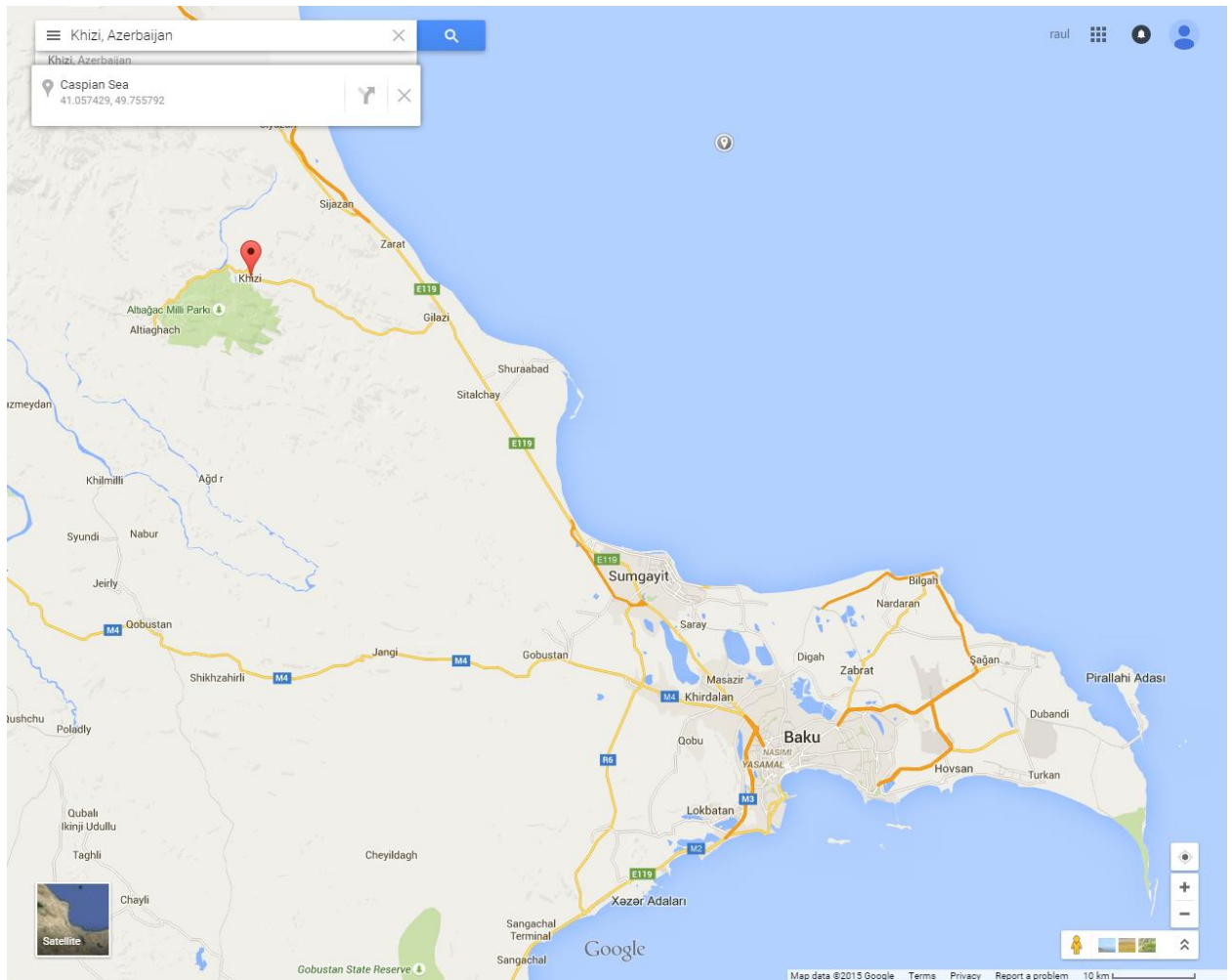
Biomass can also make a significant contribution to the 2020 target. The Ministry has included the waste-to-energy process among its renewable energy development plans, with public investments directed towards the construction of solid and municipal waste incineration plants. The French Company, CNIM, operates a waste to energy plant in Baku, under a project cost €346m with the 20 year contract. On a smaller scale, Geothermal, Solar power and Wind will help to meet domestic energy needs. Thermal extraction techniques are being used as part of an experimental heating policy in the western part of Ganja. The South Korean, IIAN Tech, invested US\$2.25m in a hybrid solar power project in the Neftchala region. Annual wind power reserves exceed 800MW, but are under-exploited

### The status of Wind Power in Azerbaijan

At present, there are 3 wind power stations in Azerbaijan. All three are north of Baku, near the coast. These are as follows:

- 1) The onshore wind farm in Khizi. It uses 2 turbines ( Vestas V52/850), with total nominal power of 1,700kW. The developer is the Caspian Technology Company.
- 2) The onshore wind farm in Sitalcaj. It uses 4 turbines ( Powerwind 56) with a total nominal power of 3,600kW. The developed is PowerWind, and the owner, is Trans TC MC, of Baku.
- 3) The onshore wind farm in Yashama, near Khiza. It uses 21 turbines with a total nominal power of 50,500 kW. The developer is the Caspian technology Company.

The position of Wind Power stations in Azerbaijan, are near the town of Khizi, as shown on the Map below.



## 2) Project Objective

To provide Pirallahi's and Chilov Islands demand for electricity.

## 3) Project Description

The Pirallahi wind power plant will be along the bridge that connects Pirallahi and Chilov islands. It will play the major role in providing electricity to the planned developments in the islands, such as Pirallahi High Technology Plant.

## 4) Location Description: Pirallahi Islands

The Pirallahi Islands are next to the Absheron Peninsula, which has the greatest wind potential in the country.



## 7) Project Management and Organization Structure

The Project will be led by the State Agency on Alternative and Renewable Energies, with support from AZPROMO.

The proposed financial scheme and share distribution is negotiable. The project envisages the majority of the financing, and share ownership will be from the investor.

### 10) Project implementation schedule

The project will take up to 1 year to be realized, from initial creation of project team to final marketing.

Project Implementation	Year 0,25	Year 0.5	Year 0.75	Year 1
Project Team				
Location review and acquisition				
Site operations construction				
Asset Procurement				
Asset Testing				
Marketing				

### 11) Estimated Budget and balance sheet

The assets focus on the capital expenditure for equipment, whilst the main liabilities relate to energy costs.

Pirallahi Wind Power Estimated Project Balance Sheet	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7 to Year 15
<b>Assets US\$ Million</b>							
Cash	15	15	20	20	30	30	30
Land	50	50	50	50	50	50	50
Building	5	5	5	5	5	5	5
Equipment	730	730	725	725	720	720	720
Total Assets							
<b>Liabilities</b>	300	300	200	200	100	100	100
<b>Owners Equity</b>	500	500	600	600	700	700	700



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