



NEXTGENSIM 2021

wildfire

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BACKGROUND

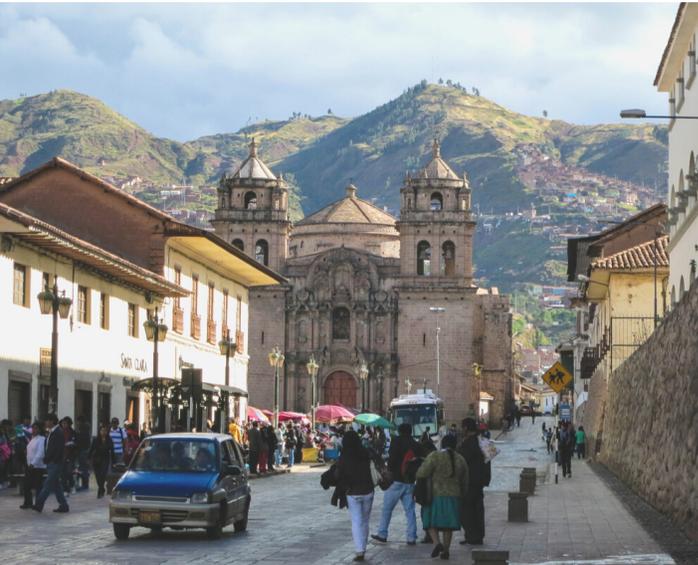


Firenzia is located between Colombia, Ecuador, and Brazil in South America. Geographically, it is a small country with the Andes mountains along the coast. In the interior of the country, there are many hills covered by untouched tropical forests. At the border with Brazil, Firenzia is flat and covered by the Amazon rainforest. Since the 1980s, farmers and cattle ranchers have cut down sections of the forest, in a method known as “slash-and-burn” agriculture. Individuals cut down the largest trees and then set fire to the land to clear the remaining brush. The ash from the fire fertilizes the soil, making it incredibly fertile. By 2000, over 10,000 square acres have been deforested in Firenzia through slash-and-burn agriculture. As a result, farmers have planted soybeans and corn (most destined for export to neighboring countries, like Brazil). Cattle ranchers have raised cattle to meet rising global demand for beef. Both farmers and ranchers have made substantial profits and are able to connect their homes to the electric grid and provide for their families (housing, food, school fees, and healthcare).

In 2000, the population of Firenzia is 10 million. Most citizens in Firenzia live in the country’s largest cities. There are two major cities in Firenzia: the capital, Viejo, and the largest metropolis, Nuevo. In 2000, the population of Viejo is 1.5 million. Nuevo has a population of 7.5 million in 2000. The remaining population lives in small, rural communities scattered throughout the country. The average household is 4 individuals, which means there are 2.5 million households in Firenzia.

The average salary per household is approximately \$1,000 per month. Unemployment is 29%, with even higher rates (55%) for youth. The majority of individuals work in agriculture (60%), shops, and public services (local government administration, nurses, and teachers).

BACKGROUND



Viejo is an old city, established in the 1600s. Its beautiful old town is a UNESCO World Heritage Centre. Viejo is the seat of Firenzia's national government. It is extremely expensive to live in Viejo, with an average apartment rental of \$1,500 per month. Almost all who live in Viejo are the country's elite: politicians, business people, lawyers, and doctors. Viejo is a beautiful city, with mountains surrounding the city and expensive houses built on the cliffs. Household income in Viejo is significantly higher than anywhere else in the country.



Nuevo initially grew as a commuter town for Viejo. Most residents in the 1970s worked in Viejo, but could not afford the skyrocketing rents and cost of living in the capital city. Nuevo's population exploded in the 1980s as more businesses moved into the center. Nuevo is often mocked by residents of Viejo as an "industrial city". As more individuals moved to Nuevo, informal neighborhoods sprang up in the city outskirts. These neighborhoods, known as "barrios" to locals, are not properly zoned and housing codes neither followed nor enforced. Nearly half of Nuevo's residents live in one of the barrios. Life inside the barrios is difficult, with little access to healthcare and schools. During political campaigns, politicians promise to improve life and access to services in the barrios, but after they're elected, they never follow through on campaign promises. Individuals and families in the barrios are suspicious and resentful towards the government.

GOVERNMENT

Every six years, citizens elect a president, with the prime minister chosen from the opposition party (often the individual who was not elected as president). Firenzia has a Congress and several ministries specializing in national priorities.

There are two main political parties in Firenzia. The Poderoso Party has typically held the presidency since the 1970s and mainly represents the interests of Viejo. Most Poderoso figures come from wealthy, elite families in the country and many were educated in top universities abroad. The Fuego Party is relatively new, but gaining in popularity. They mainly represent the interests of the people in Nuevo and their slogan is "The People's Party".



ENERGY

Andes Gas & Electric (AGE) is the sole energy company in the country. Since the 1940s, Firenzia's primary source of electricity generation in the country has been a coal power plant. In the 1970s, Firenzia built an oil power plant which provided some additional electricity for the country, but AGE soon revealed that exporting oil was significantly more profitable than using the oil to produce some electricity. As a result, the oil power plant was closed and remains inactive. There are no plans to restart operations at the oil plant; all oil extracted from Firenzia's Pacific coast will be sold for profit.

In Firenzia, only 62% of the population has access to electricity. That means, 3.8 million people do not have access to electricity (950,000 households). Most of these households are located in Nuevo, the barrios, and the Ari'capia community.



VISION 2020



In 2000, Firenzia is rapidly developing. The current government wants Firenzia's national policy to look towards the future. In 2000, the Firenzia national government designed *Vision 2020*, an ambitious plan to transform Firenzia into a leader in Latin America by the year 2020. The plan includes all sectors of the country.

Six commissions have been created by the national government and include stakeholders from all sectors of Firenzia. The six commissions are:

- Social Programs
- Economic Development
- Transparency & Governance
- Defense & Foreign Relations
- Transportation & Infrastructure
- Energy.

The commissions never meet together at any single meeting, but work separately to set policy goals to be accomplished by the year 2020.

Within the Energy Commission, there are three groups of stakeholders: the National Government, representing the executive branch and different ministries; Andes Gas & Electric (AGE) representatives; and the National Offices, different offices functioning in the government who work in local communities in Viejo and Nuevo. Together, these three stakeholder groups are responsible for setting the policy objectives for the Energy Commission in *Vision 2020*.



ENERGY COMMISSION CHARACTER PROFILES

ENERGY COMMISSION PROFILES

National Government Officials

- Advisor to the President
- Advisor to the Prime Minister
- Ministry of Foreign Affairs
- Ministry of the Workforce
- Ministry of Energy
- Ministry of Finance & Budget
- Ministry of Science & Technology
- Ministry of the Environment
- Ministry of Interior
- Ministry of Agriculture

Andes Gas & Electric (AGE)

- Executive Leadership Representative
- Coal Representative
- Finance Representative
- Solar Representative
- Wind Representative
- Hydropower Representative
- Oil Representative
- Maintenance Representative
- Corporate Social Responsibility

National Offices

- Office of Economic Development (Viejo)
- Office of Economic Development (Nuevo)
- Civil Engineering Department at the National University of Firenza
- Office of Indigenous Affairs
- Office for the Preservation of Biodiversity
- Office of the Workforce
- Nuevo Office of Mayor
- Viejo Office of Mayor
- Office for Climate Change
- Office of Community Interests



ENERGY COMMISSION PACKAGE



DIRECTIONS

In twenty years, Firenzia wants to be powered by at least 90% renewable energy sources and less than 10% fossil fuel sources.

As the Energy Commission, you must decide **how** Firenzia will meet *Vision 2020's* energy policy objective.

Energy Option

The Energy Commission needs to vote on an option that will be selected as *Vision 2020's* policy objective. The option that receives majority of the vote will be Firenzia's 2020 energy goal set in *Vision 2020*.

The total budget for the Energy Commission is \$20M. Costs are set and **cannot** be negotiated.

In some options, it is possible to take a foreign loan to cover large expenses.

OPTIONS



OPTION 1: BUILD A HYDROELECTRIC DAM ON THE AZUL RIVER

It will cost \$40M to build a dam over 15 years. Once completed, the hydro dam will produce 4,000 MW. That amount of electricity will provide energy for 6 million households.

To fund the construction of the dam, you will take a \$35M foreign loan offered by the Eurasian country, North Yasric. While a large foreign loan can cover costs, will a high-interest loan cripple Firenzia in the future?

With this option, it is possible that AGE's coal and oil assets could be phased out by 2020, making Firenzia 100% reliant on renewable energy.



OPTION 2: SOLAR ONLY

It will cost \$18M per installation (1 installation = 2,000 MW and will require approximately 10% of the available farm land). 2,000 MW would provide energy to 3 million households.

AGE's coal and oil assets can slowly be phased out by 2020, making Firenzia 100% reliant on renewable energy.



OPTION 3: WIND ONLY

It will cost \$18M per installation (1 installation = 2,000 MW and is approximately 3,000 wind turbines). 2,000 MW would provide energy to 3 million households.

AGE's coal and oil assets can slowly be phased out by 2020, making Firenzia 100% reliant on renewable energy.



OPTION 4: WIND & SOLAR COMBO

\$25M for a combination of solar and wind power (50/50). 2,000 MW, which provides electricity for 3 million households.

However, to afford this option, Firenzeia would need to take out a foreign loan offered by North Yasric. While a foreign loan can cover costs, will a high-interest loan cripple Firenzeia in the future?

With this option, it is possible that AGE's coal and oil assets could be phased out by 2020, making Firenzeia 100% reliant on renewable energy



OPTION 5: STATUS QUO AND MORE

AGE's single coal power plant currently produces 1000 MW, which provides electricity for 1.5 million households (62% of the population). The coal plant currently employs 4,000 workers.

Install a scrubber in the coal power plant, which reduces emissions by 50%. Additionally, export more oil internationally to earn \$10M. Use that money to cover the cost of transitioning...later. There would be no need to take out a foreign loan from North Yasric.

While there is significant revenue that can be earned from oil, the goal of Vision 2020 is to cut reliance on fossil fuels. If the Energy Commission decides to increase the amount of oil to be sold domestically and/or internationally, there is a risk Firenzeia may never be able to end its reliance on fossil fuel.



BUDGET SURPLUS

If there is a budget surplus, that funding can be contributed to energy infrastructure maintenance or the Social Programs Commission, for a joint project to create a much-needed Workforce Development Training.