

Hydroelectric Power.... Is It Worth The Price?



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Overview

- HydroAysen Dam Project
- Environment Impact of the Project
- Chilean Response to the Dams
- Advantages of Using Hydropower
- Economical Value of Hydropower



About Patagonia, Chile...



Located in the Southern Aysen region of Chile

Landscape

- Jagged mountains
- Beautiful glaciers



- And numerous rivers flowing into the sea

- Sparse in human population
 - 0.8 Person/km²
 - San Francisco has 6,700 Persons/km²



The HidroAysen Project

- \$7 billion Project
- 5 dams on 2 rivers; The Rio Baker and Rio Pascua.
- 18, 430 Gw/hr of power annually, 30% of Chile's power.
- 8,614 ha will be flooded
- Strong public opposition of the project.



Impact of Damming

- Interrupts flow and changes;
 - Discharges
 - Sediment loads
 - Organic dispersion
 - Possible water quality



Changing The Environment

- Eroding river beds/banks
- Displacement of wildlife
- Food source for coastal species



Disadvantages of HidroAsyen

- Thousands of people have been protesting against the HidroAsyen project.
- (70%) People vs. Government



Disadvantages of HidroAsyen

Protests:

- Becoming unsafe for the public
- Interference with tourists
- Violence
- Tear gas
- Fires
- Police
- Shootings



Disadvantages of HidroAysen

- Companies involved in protests.
- Negative effects on ecosystems.
- Dams will harm mining companies, power lines.
- Project will reach the outskirts of Patagonia.



Disadvantages of HidroAysen

Reasons for protests:

- Nature of Patagonia vs. Economic Development
- Patagonia is used for crops, travel, open land.
- The construction of dams will replace the homes of rare species of animals and plants.



Disadvantages of HidroAysen

- Chile will lose a large number of tourists due to the loss of the natural environment.
- Locals depend on tourists for business.



Why the advantages outweigh the disadvantages...

- Social Advantages:
 - Leaves water available for other uses.
 - Often provides flood protection.
 - Enhances recreation
 - Can sustain livelihood by providing water and food supply.

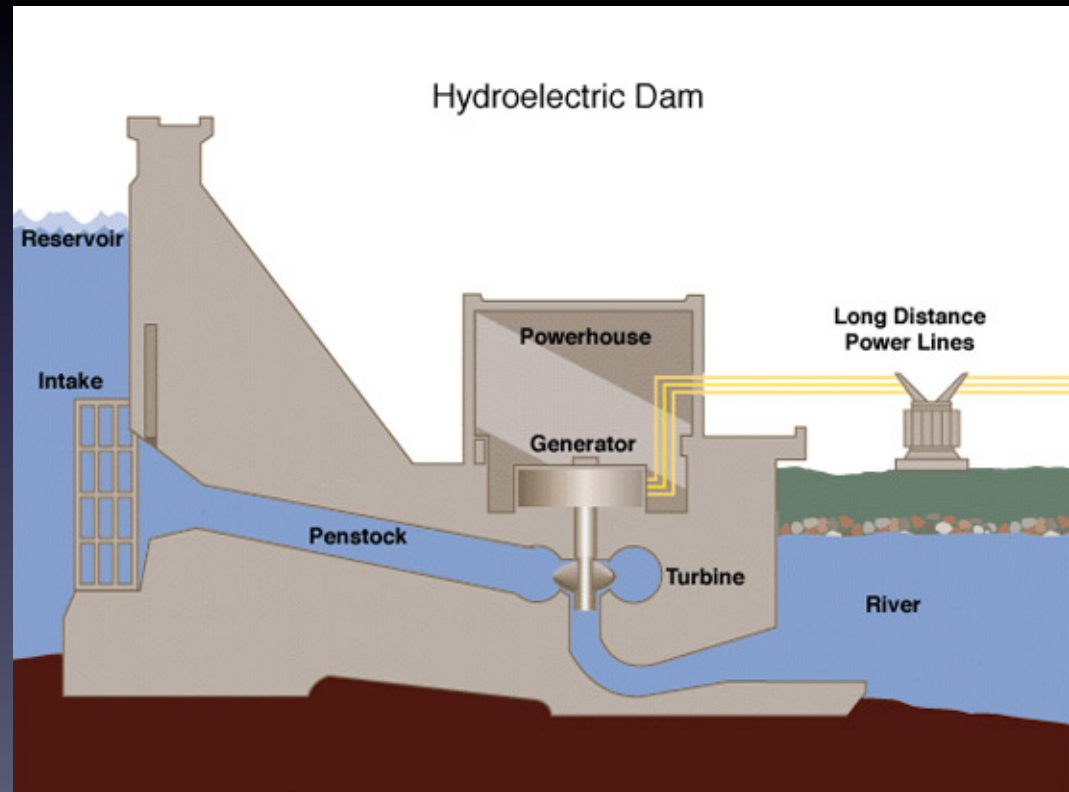


- Environmental Advantages:
 - Clean Fuel Source – Uses water
 - Doesn't pollute the air like fossil fuels such as coal and natural gas
 - Produces no waste
 - Produces new water ecosystems with increased productivity



Advantages Continued..

- Can always be produced locally and is not imported from other countries.
- Engineers can control the flow of energy through the use of turbines when energy is needed.



Reservoirs

- Fishing
- Swimming
- Boating
- Money for local economy



Advantages of HidroAysen...

- Equal to 30% of the current power used in Chile.
- Chile depends largely on Hydropower
- Less dependence on foreign power
- Less Expensive Energy
- Solar and wind energy is still years away from being an acceptable alternative



The Economical Advantages

- Direct employment will be created out of the construction of the dams.
- Indirect employment will be created with the increase of local town commercial activity.



Economical Advantages

- It will increase the local commercial activity. Giving more business to the local business'
- Increase municipal income of the local area from things like building permits or vehicle fees.



HidroAysen's Economical Plan to Help Local People

- Food and a allowance will be provided for economic support for the first two years.
- “The Aysen region will receive less expensive energy, jobs, scholarships and \$350 million in infrastructure, including seaports and airports”, said HidroAysen's executive vice president, Daniel Fernandez.



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Questions?

