



# AGUAS ANDINAS CORPORATE PRESENTATION

June 2017

# AGUAS ANDINAS



Chile's largest water utility company



100% coverage in potable water and sewage treatment



2,213,869 clients  
Representing 43% of the industry's clients

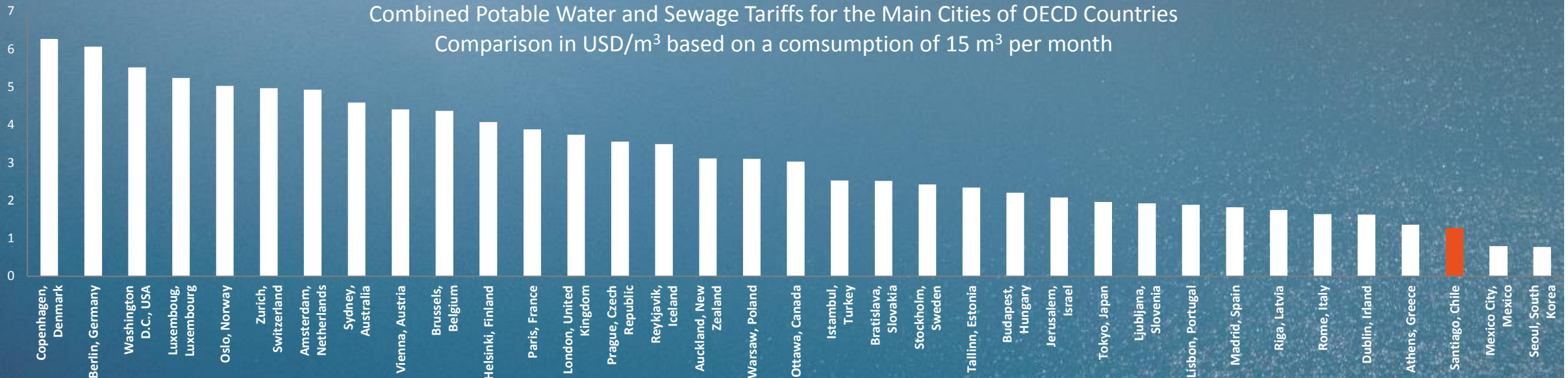


50% of the industry's potable water billing



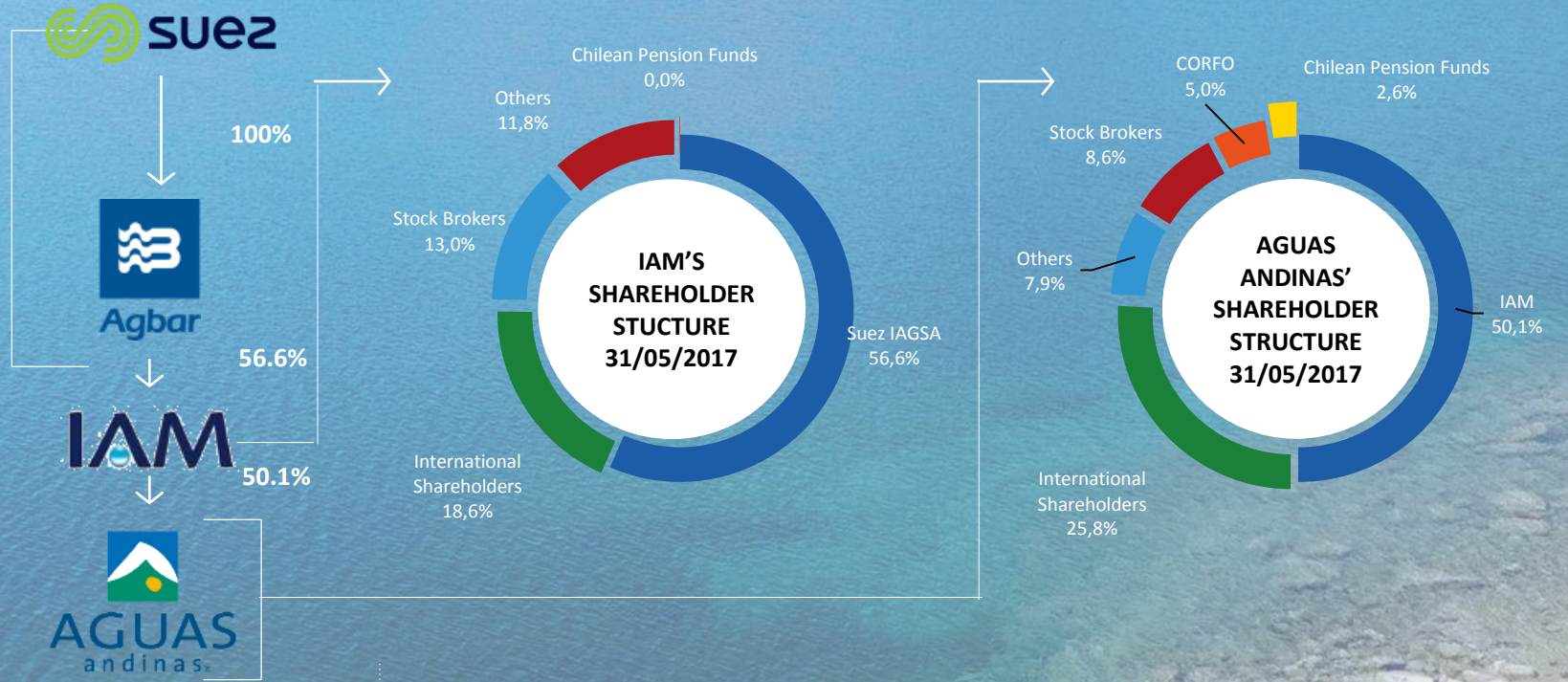
One of the lowest tariffs in Chile and in OECD nations

Combined Potable Water and Sewage Tariffs for the Main Cities of OECD Countries  
Comparison in USD/m<sup>3</sup> based on a consumption of 15 m<sup>3</sup> per month



Note: In the cases of Australia, New Zealand and Switzerland, the cities considered are Sydney, Auckland and Zurich respectively.  
Source: Global Water Intelligence Water Tariff Survey 2016, Suez

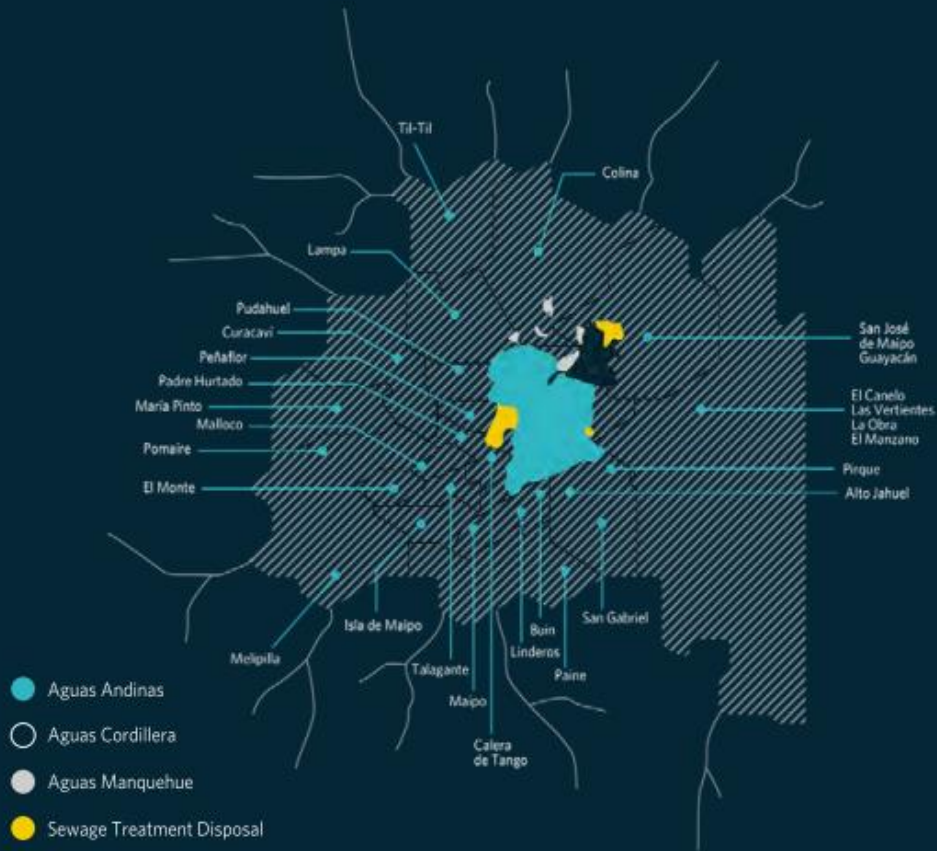
# CORPORATE STRUCTURE



# CONCESSION AREAS

## METROPOLITAN REGION

In the Metropolitan Region, the concession area is located in the Santiago watershed, in the intermediate depression of central Chile, bordered on the north by the Chacabuco slope and to the south by Angostura de Paine.



## LOS LAGOS AND LOS RÍOS REGIONS

In the south of the country, the concession area belonging to ESSAL includes 33 localities of the provinces of Valdivia and Ranco in the Region of Los Ríos; and Osorno, Llanquihue, Chiloé and Palena in the Los Lagos Region.



# COUNTRY COMMITMENT

A tall, modern brick building with a glass facade, a palm tree, and people cycling in the foreground.

## VISION

To be a leading company in sustainability in Chile ensuring water for future generations.

## PURPOSE

We manage resources efficiently, creating shared value.

## STRATEGY

Santiago Merece Un 7  
(Santiago deserves an A+).  
The future is built starting today.

# STRATEGY TO ACCOMPLISH OUR COMMITMENT



**1. BUSINESS MODEL**



**2. RESILIENCE**



**3. DIGITALIZATION**



**4. CIRCULAR ECONOMY**



**5. SOCIAL LEGITIMACY**



**6. INNOVATION AND PEOPLE**



**7. WATER AND QUALITY OF LIFE**



# CHALLENGES

- **Transform** its sewage treatment plants into biofactories
- **Reuse** 100% of residues and transform them into energy for their production.
- **Drastically reduce** its carbon foot print and that of the country.
- Aguas Andinas and its subsidiaries are contributing to the country, through **12 of the 17 Sustainable Development Goals**.
- The SDGs were subscribed to by the **Chilean Government** as a guide in sustainable development matters.

## Aguas Andinas' goal ins to achieve zero emissions



# AGUAS ANDINAS CONTRIBUTES TO 12 OF THE 17 SDGS

	MAIN SDG INITIATIVES UNDERWAY	SDG
<b>BUSINESS MODEL</b>	Sub-Management of Compliance	16
	Evaluating Board Performance	
	Board Training	
	Approval of Risk Map for the Board	
	Incorporating women into the Board	5 - 11
	Comprehensive Supplier Management	8
	Approval of Anti-Corruption Policy	16
	Approval of Sponsorships, Donations and Academic Collaboration Policy	16
	Strengthening of the Complaints Channel	5 - 8 - 10
	Sensitization of workers in Sustainable Development and Circular Economy	4
<b>RESILIENCE</b>	Climate Change Strategy	1 - 11 - 13
	Hydraulic Efficiency Plan	6 - 11
	Energy Efficiency Plan	7 - 13
	Safety equipment	1 - 6
	Plan of Improvements in Management of Aqueducts	1 - 6
	Study of the age of pipes	1 - 6
	Simulation for events	1 - 6
	Strategic Customer Plan	6
	Continuous Improvement in Claims Management	
<b>DIGITIZATION</b>	Virtual Office	9 - 11
	Electronic Billing	9 - 11
	Client Data warehouse	9 - 11
	AMR Solutions - Telelearning	9 - 11
	Sct mobile - Work Parts	9 - 11
<b>CIRCULAR ECONOMY</b>	Cogeneration Project	7
	Thermal Hydrolysis	7
	Emissions Monitoring	13
	Sludge Assessment	7 - 12
	Waste Baseline	11
<b>SOCIAL LEGITIMACY</b>	AVANZA Program	8, 10
	Good Neighbor Program	11
	Awareness Campaigns	6
	Educational Programs	4, 6
	Amiga Account	1 - 6
<b>INNOVATION AND PEOPLE</b>	Integrated talent management	8
	Water School	4 - 6 - 8
	Certification under NCH3262 5	5
	Measuring Organizational Climate - GPTW	8
	Ten Commandments of Good Conduct	8
	Health and Safety Management System	3
	Cetaqua	9
	WaterLab	9
<b>WATER AND QUALITY OF LIFE</b>	APR Management	6
	Compliance with Rural Potable Water Quality (APR)	6
	ESSAL Biodiversity Initiatives	15
	City Gas	7



# INVESTMENTS



# INVESTMENTS TO MANAGE TURBIDITY EVENTS

## PHASE I

### WHAT HAVE WE DONE?

- 25% more potable water reserves (225,000 m<sup>3</sup>).
- Habilitation of the Cerro Negro wells with a flow of 300 l/s.
- Conduction from the El Yeso Reservoir to Laguna Negra
- Double the number of hours of autonomy from 4 to 9 hours.
- 30 turbidity events without impact.
- Investments: CLP 39 billion.

**Estanque Las Vizcachas  
of 161,000 m<sup>3</sup>**

# COMPLIMENTARY WORKS TO AVOID WATER CUTS DUE TO TURBIDITY EVENTS

**New works for 2018**  
**Associated investment: CLP\$15 billion**



**CONSTRUCTION OF 8  
POTABLE WATER TANKS**  
with reserves of 54,000  
cubic meters, in the pre-  
mountain area.

Investment: CLP\$11  
billion



**CONSTRUCTION OF NEW  
WELLS** with a capacity of 400  
liters per second in the  
communes of Pedro Aguirre  
Cerdea and Lo Espejo.

Investment: CLP\$2 billion



**HABILITATION OF 13  
EMERGENCY WELLS** with a  
production capacity of 500  
liters per second in the  
communes of Conchali,  
Independencia, and  
Recoleta.

Investment: CLP\$2 billion



**SUPPLY  
AUTONOMY**  
From 9 hours to  
11 hours.

# INVESTMENTS TO MANAGE TURBIDITY EVENTS

## PHASE II



# Estanques Pirque

### WHAT ARE WE DOING?

- Tripling the autonomy from 9 to 32 hours with an investment of CLP\$64.22 billion
- Working with municipalities and authorities in emergency situations.
- Increasing the capacity of the Padre Hurtado Plant and four new filters in the Vizcachas Complex.
- New Chamisero potable water plant in construction.
- New interconnection works (lifting and impulsion plants)

**1,500,000 cubic meters  
of water**

# TURBIDITY WORKS: PHASE III

## SAFETY WORKS

4 possible alternatives to  
have over 48 hours of  
autonomy



**A1. INCREASE CAPACITY** of raw water reserves with a second tank next to the one in progress (Pirque Tank, Phase II).

**Estimated investment:**  
**USD \$115 million**



**A2. COYANCO RESERVOIR** and the conduction to the Pirque Tank.

**Estimated investment:**  
**USD \$238 million**



**A3. WATER RECYCLING**, through the regeneration of water treated in Aguas Andinas' WWTP and transporting them to supply points.

**Estimated investment:**  
**Over USD \$500 million**



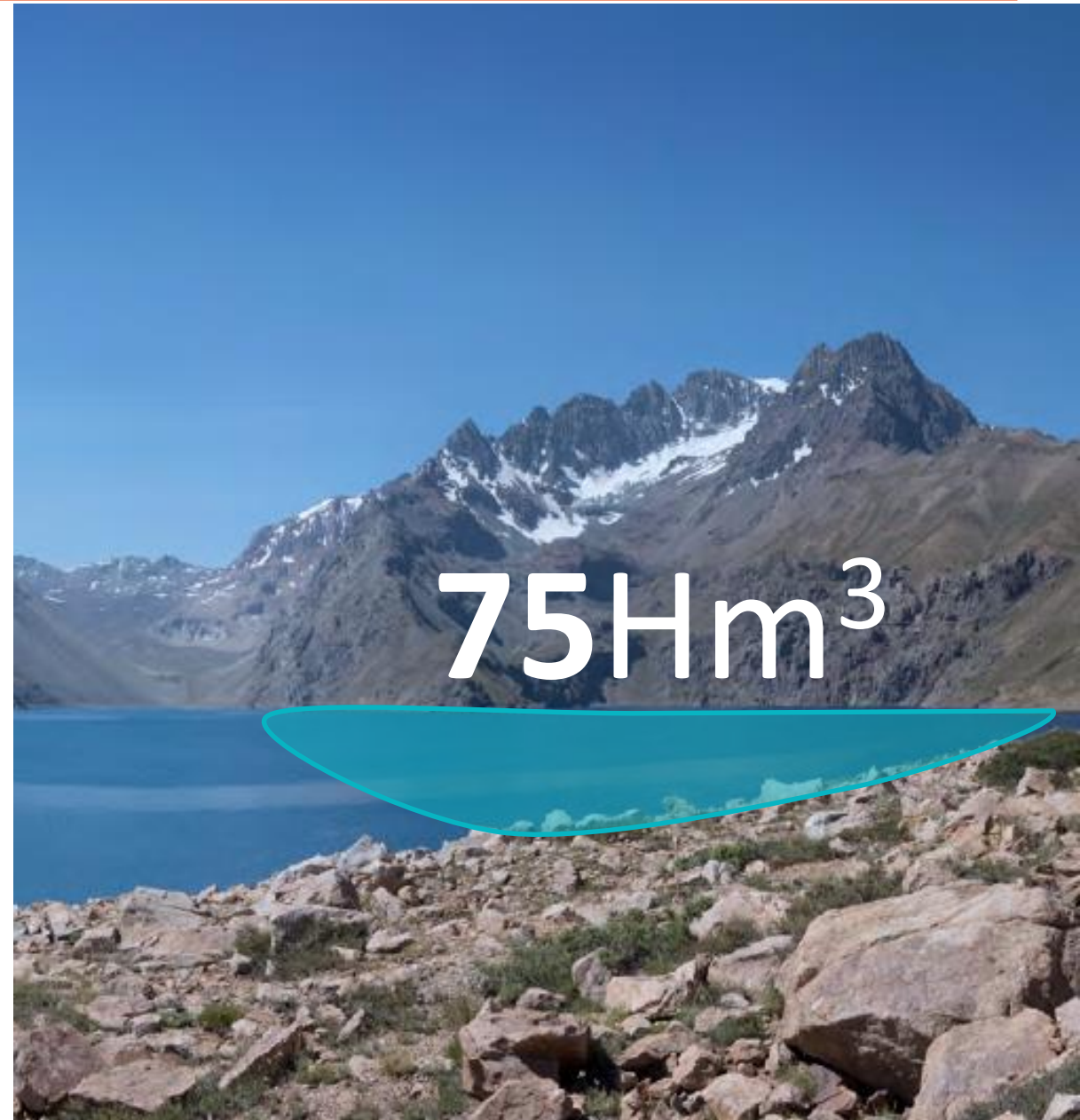
**A4. CONDUCTION** from the El Yeso Reservoir to the Pirque Tank.

**Estimated investment:**  
**USD \$410 million**

# HYDRAULIC EFFICIENCY PLAN

## EXPECTED RELEVANT ACHIEVEMENTS:

- Decrease water production by 75 Hm<sup>3</sup>/year (equivalent to 1/3 of the El Yeso Reservoir)
- Decrease the average daily production in 200,000 m<sup>3</sup>/day equivalent to:
  - More than 1 Vizcachas safety tank.
  - More than 2 Padre Hurtado treatment plants.
  - 6 additional hours of reserves in addition to the Pirque Tank.



# INVESTMENTS IN POTABLE WATER

- Increase in capacity from 0.8 m<sup>3</sup>/s to 1.25 m<sup>3</sup>/s in the Padre Hurtado Plant.
- A regulation tank is being built with a capacity of 2,000 m<sup>3</sup>.
- Associated investment of USD\$2 million.

Increase in Capacity

New Chamisero Plant

- This plant is being built in order to satisfy the demands of the Chamisero and Chicureo zones.
- It will be operational in May 2018.
- Associated investment: USD\$22 million.

Arsenic Abatement

- An arsenic abatement plant is being built in the San Antonio complex which will be operational during 2017
- Additionally, the Quilicura plant is being expanded to treat an a flow of 250 l/s and which will be ready at the end of 2017
- Associated investment: USD\$11 million.

Chlorine Gas Migration

- Migration from the use of chlorine gas to sodium hypochlorite in order to reduce the operative risks implied in the management of chlorine gas.
- Three out of the four phases of this project had been executed and the last will be executed in 2017.
- Associated investment: USD\$10 million.

# CIRCULAR ECONOMY



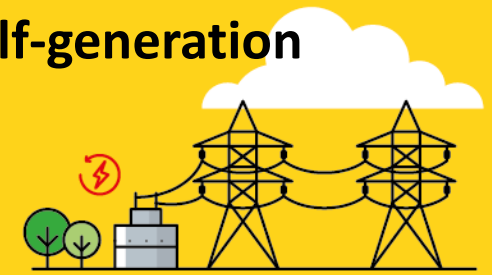
**BIOFACTORY**



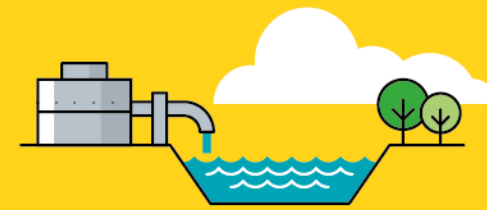
processes

2

**a** 100% self-generation



**b** Clean water



**c** Biosolids  
0% Pollution



**BIOFACTORY**



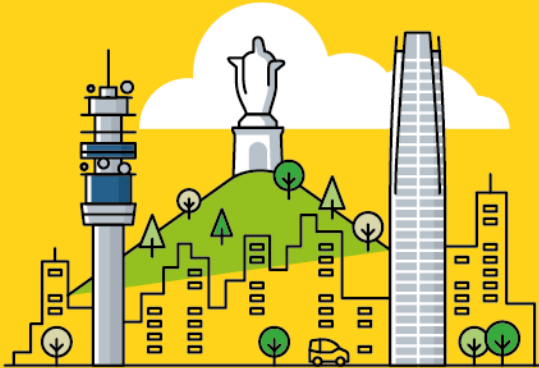
100%

of decontaminated wastewater  
we transform your waste into  
energy

1

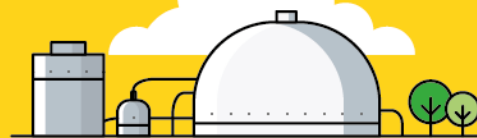
The City

0% Emission



Biogas

100% waste to energy



## Symbology

- waste water
- self-generation
- clean water
- Biosolidos
- Biogas



# PARADIGM SHIFT: FROM SEWAGE TREATMENT TO RESOURCE MANAGEMENT



## TREATED WATER

**580.7 MILLION**

Cubic meters was the volume of clean water which was put back into the rivers during 2016.



## BIOGAS

**45,990,665 kWh**

Of electricity was produced by Aguas Andinas' cogeneration motors in 2016.

**78.44%**

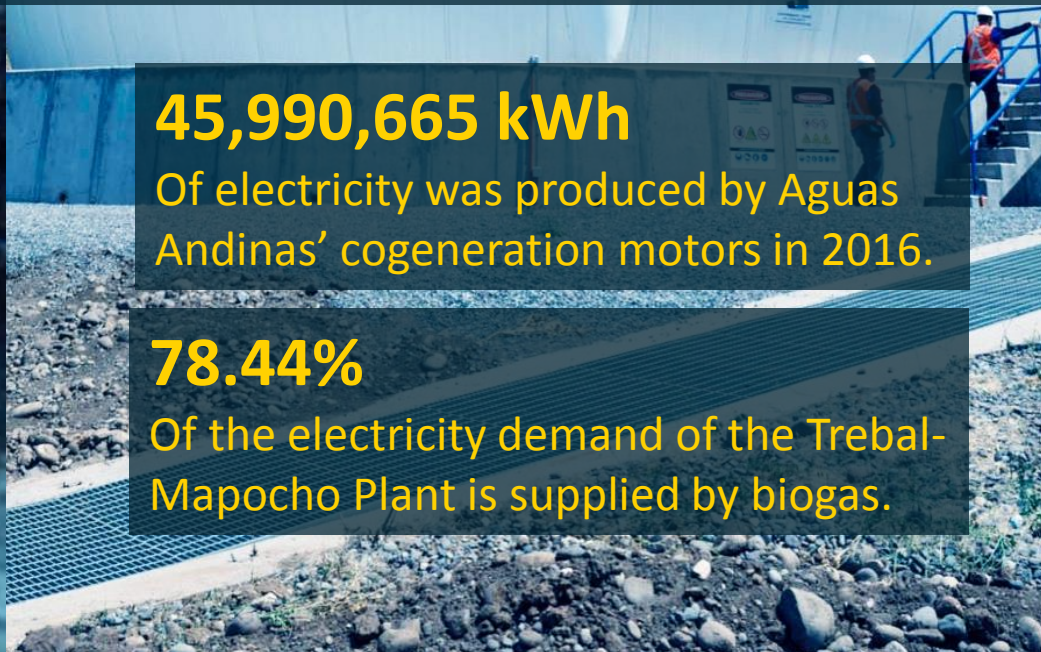
Of the electricity demand of the Trebal-Mapocho Plant is supplied by biogas.



## BIOSOLIDS

**+ 43.8%**

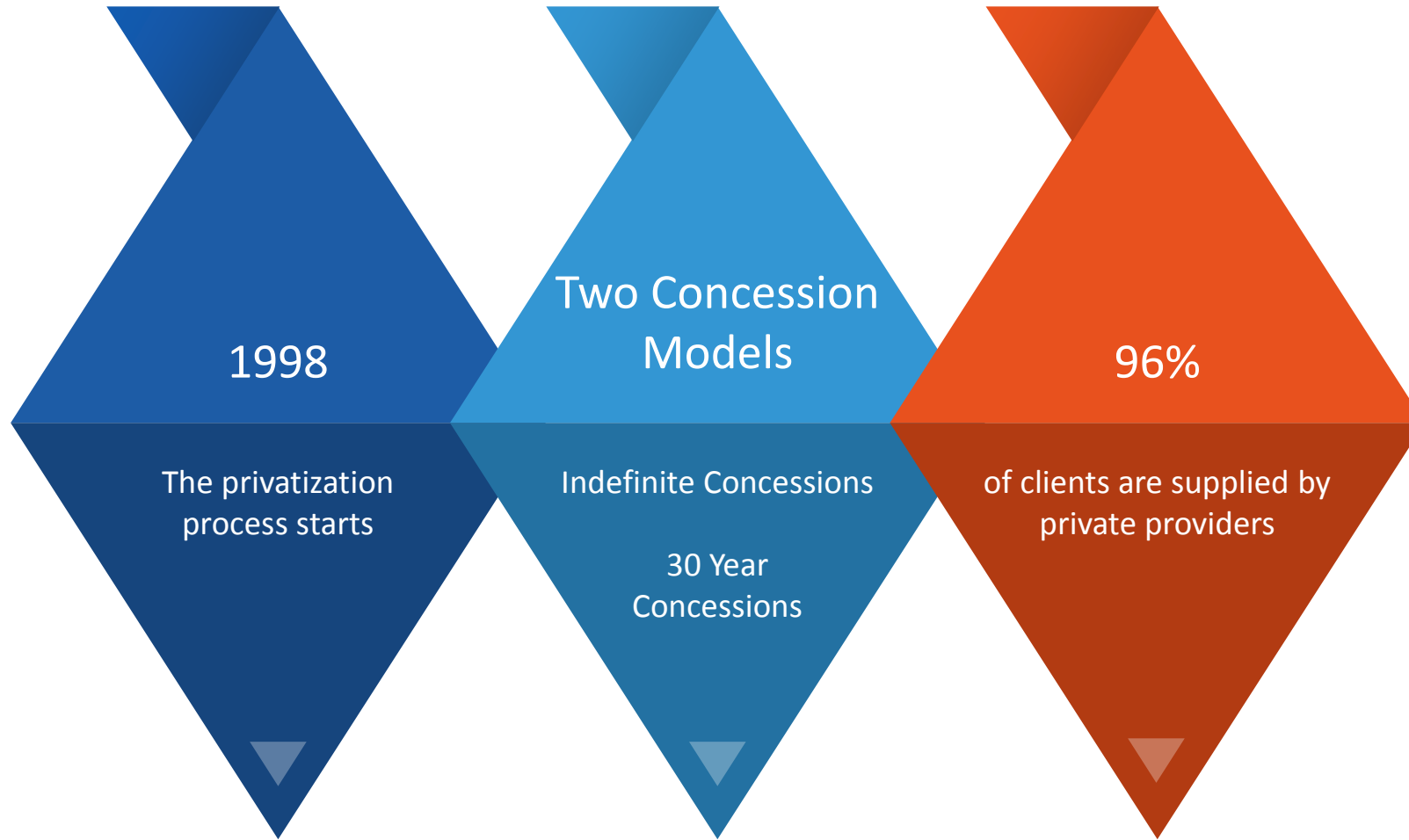
Of bio solids have been destined to the recovery of farmlands during 2016.



# REGULATORY FRAMEWORK

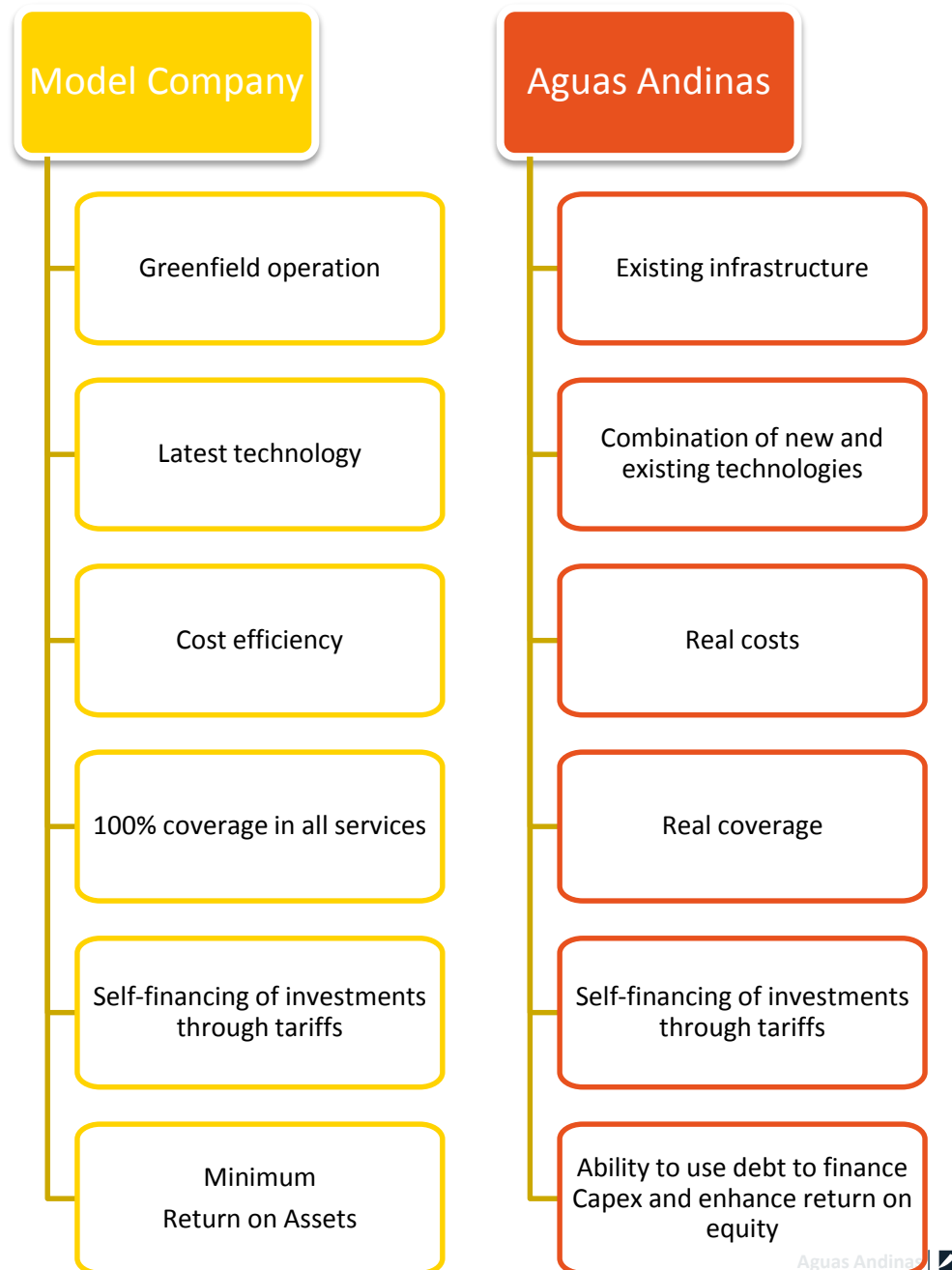


# CHILEAN WATER UTILITY INDUSTRY

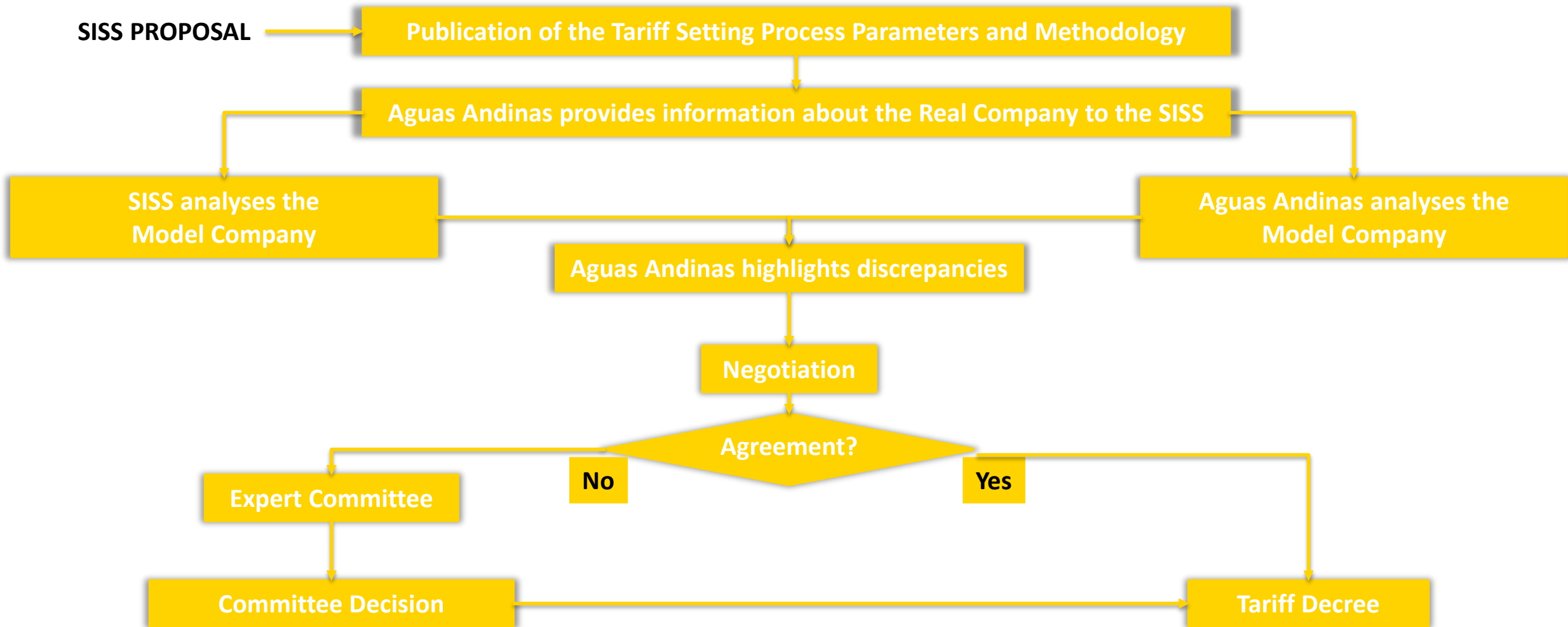


# HIGHLY REGULATED INDUSTRY

- Technical regulatory framework defined by law
- Superintendence of Sanitation Services (SISS) acts as the regulator counterpart in the tariff setting process, which lasts for 1 year approximately
- Tariffs are reset every five years, based on an unbiased and technical model:
  - Based on the long term total cost of a model company
  - Discrepancies are solved by an independent experts committee
  - Minimum real return on assets of 7% after taxes
  - Automatic interim adjustments linked to polynomials based on CPI and WPI indexes
- Government subsidies for low-income clients
- The regulatory framework of the Chilean water industry has been fundamental to the development of the sector



# STAGES OF THE TARIFF NEGOTIATION PROCESS



RISKS



# REGULATORY RISK: PROJECT OF LAW 10.705-33

Jueves, 05 de enero de 2017



## Valdés tampoco apoya cambios a regulación sanitaria

El ministro de Hacienda explicó que alterar el piso de la rentabilidad y el premio por riesgo de las empresas sanitarias, "sería cambiar las reglas del juego".

[f](#) [t](#) [G+](#) [in](#) Compartir

A<sup>-</sup> A<sup>+</sup> Imprimir Enviar

**Equipo El Mercurio Inversiones**

El ministro de Hacienda, Rodrigo Valdés, aseguró que el Gobierno hará todo lo que está en sus manos para que el proyecto de Ley **que busca modificar al sector sanitario** no altere el piso de la rentabilidad, ni el premio por riesgo que rige a las empresas.

"Hubo una moción parlamentaria aprobada en la Cámara (de Diputados, por 108 votos a favor y ninguno en contra) que cambia algunas reglas del juego para las sanitarias", dijo Rodrigo Valdés a periodistas, según información que da a conocer Valor Futuro.

- In December 2016, the Chamber of Deputies approved the Project of Law Bulletin N° 10795-33 which intends to modify the legislation which applies to public sanitation services in regards to:
  - non-regulated services,
  - the tariff-setting process and
  - the fulfillment of development plans by service providers.
- This initiative has been submitted to the Senate in its second legislative instance.
- The project of law includes six articles through which it seeks to modify the norms which are stipulated in the following legislations:
  - Decree with Force of Law N° 382, from 1989, of the Ministry of Public Works, General Law on Sanitation Services.
  - Decree with Force of Law N° 70, from 1988, of the Ministry of Public Works, about Sanitation Service Tariffs.
  - Law N° 18.902, which created the Superintendence of Sanitation Services.

# CLIMATE CHANGE RISK: TURBIDITY

- Due to climate change, there has been an increase in convective rains with isotherm zero (> 3,600 meters) in the pre-mountain area.
- This produces an increase in turbidity in the Maipo river caused by floods and landslides.
- Due to these events of force majeure, there have been water cuts as when turbidity levels surpass the design conditions of the potable water plants, the only measure that can be taken is to stop the plants to prevent embankments.
- Since 2008 and to date, there have been 6 events of high turbidity that have paralyzed the plants.
- However, 30 events have been mitigated in which the plants have not had to stop production.
- Aguas Andinas is doing all of the necessary investments in order to mitigate this risk.

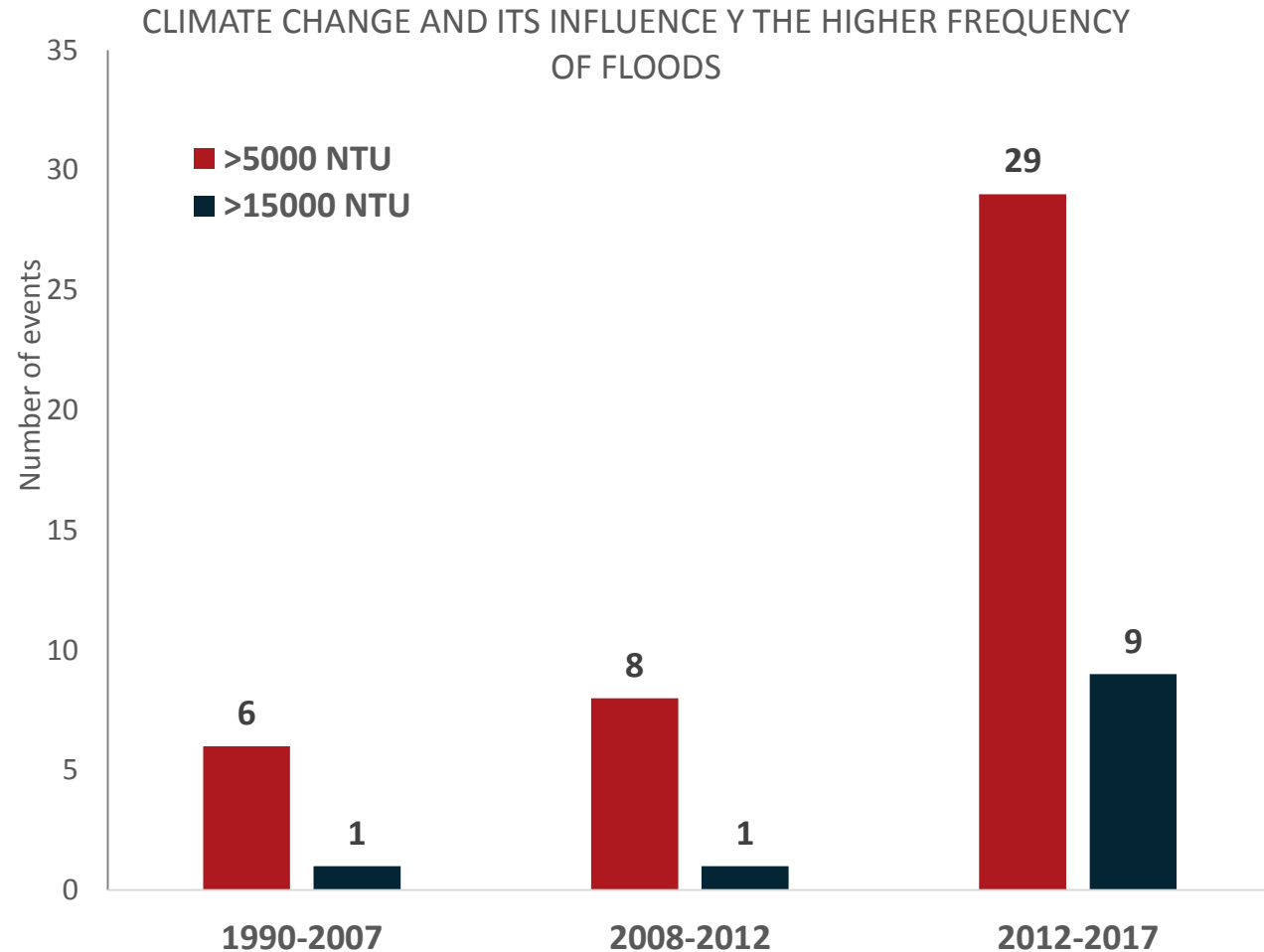


Table: Number of turbidity events whose duration has been over 12 hours over 5,000 and 15,000 NTU, during the 1990-2017 period.

Source: Water Footprint published by the Water Rights and Management Center of the UC (CDGA)

# CLIMATE CHANGE RISK: DROUGHT

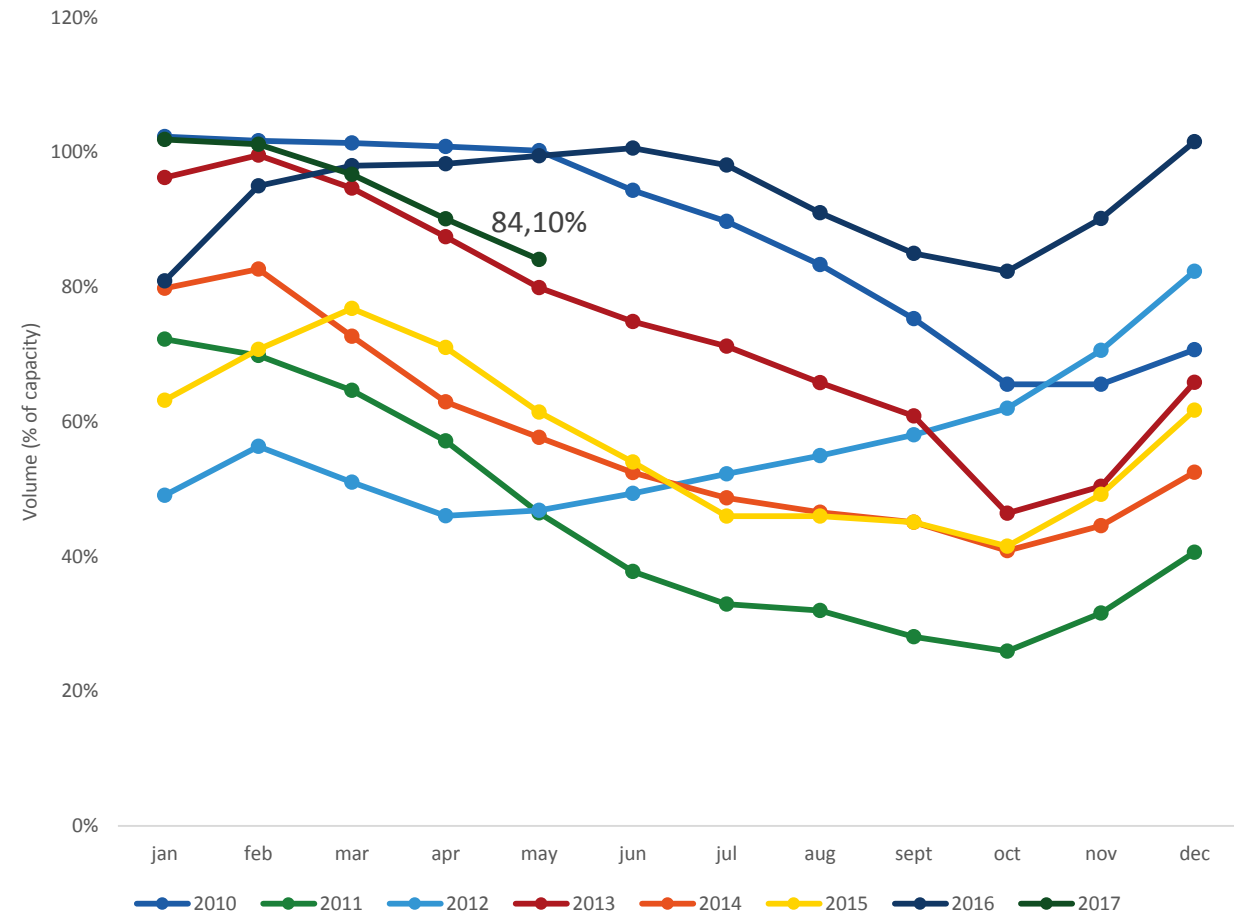
## Short-Term Plan: Drought Mitigation Plan

- New capacity in wells
- Purchase of raw water
- Renting of water rights
- Agreements with other users of the river
- Monitoring and control of illegal water usage/extraction

## Long-Term Plan: Drought and Climate Change Plan 2016-2030

- **Preliminary studies in development:**
  - Demand projection
  - Demand management
  - International experiences in drought
- **Other actions:**
  - Actions to increase supply
  - Water supply projection
  - Synergies at a user level

EL YESO RESERVOIR LEVELS



# FINANCIAL PERFORMANCE



# FINANCIAL PERFORMANCE AS OF MARCH 31 2017

*Numbers in millions of Pesos*

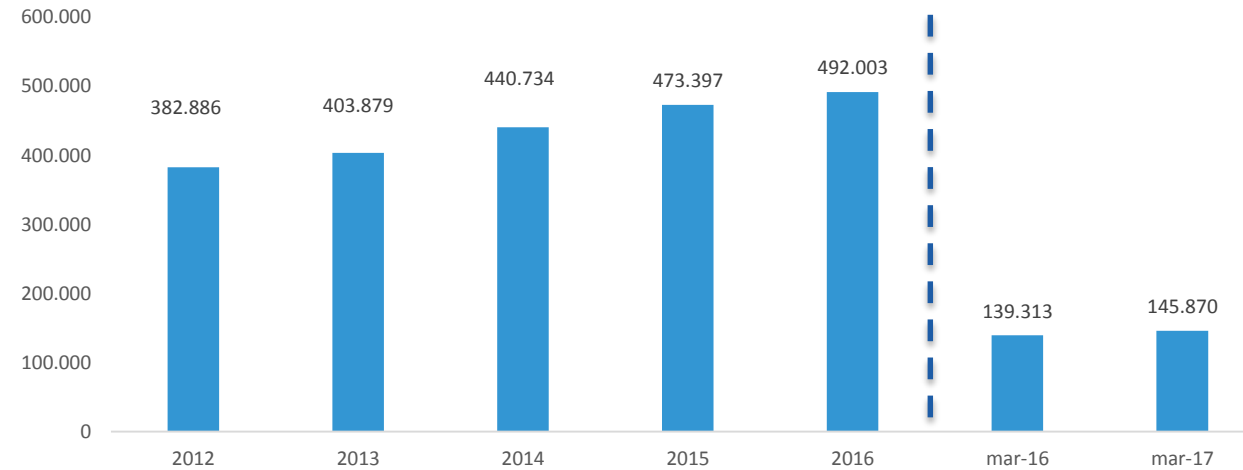


Revenue CAGR of 6.5% and EBITDA CAGR of 4.7% over the 2012-2016 period

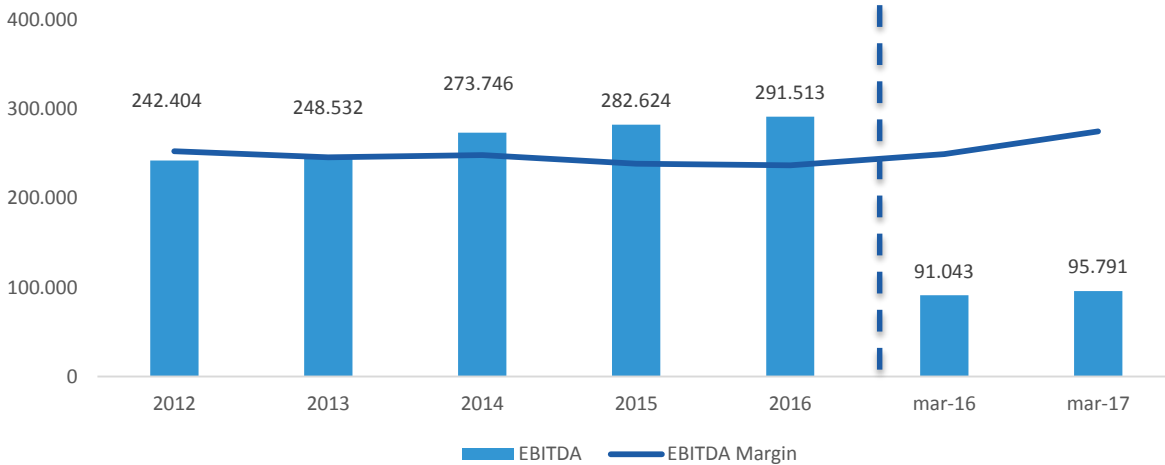


2015-2016 Growth: +3.9% revenues, +3.1% EBITDA y +16.7% Net Income

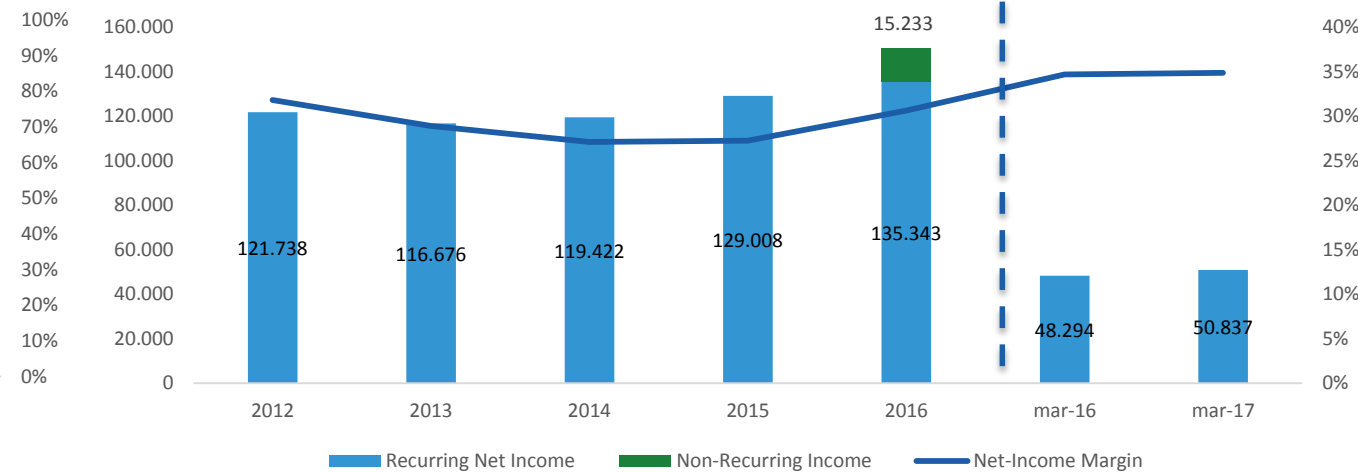
**Revenues**



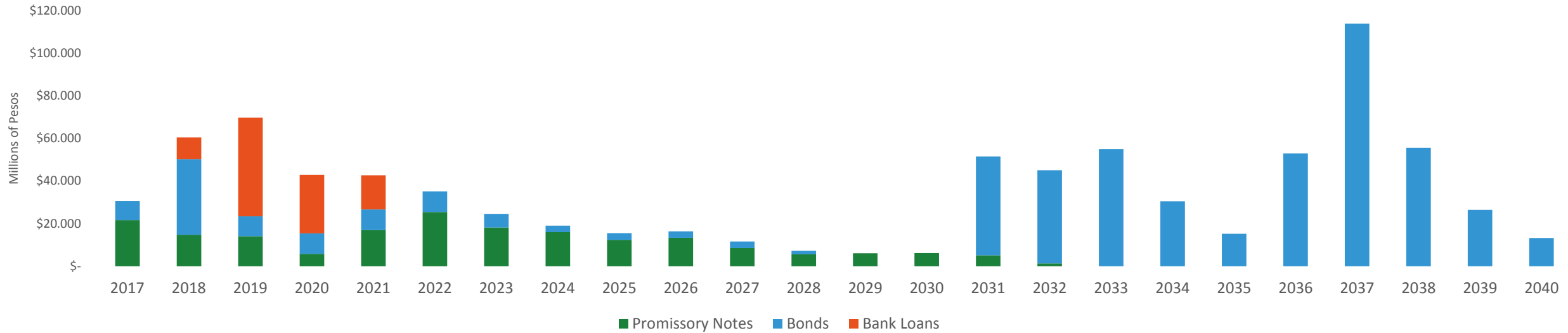
**EBITDA & EBITDA Margin**



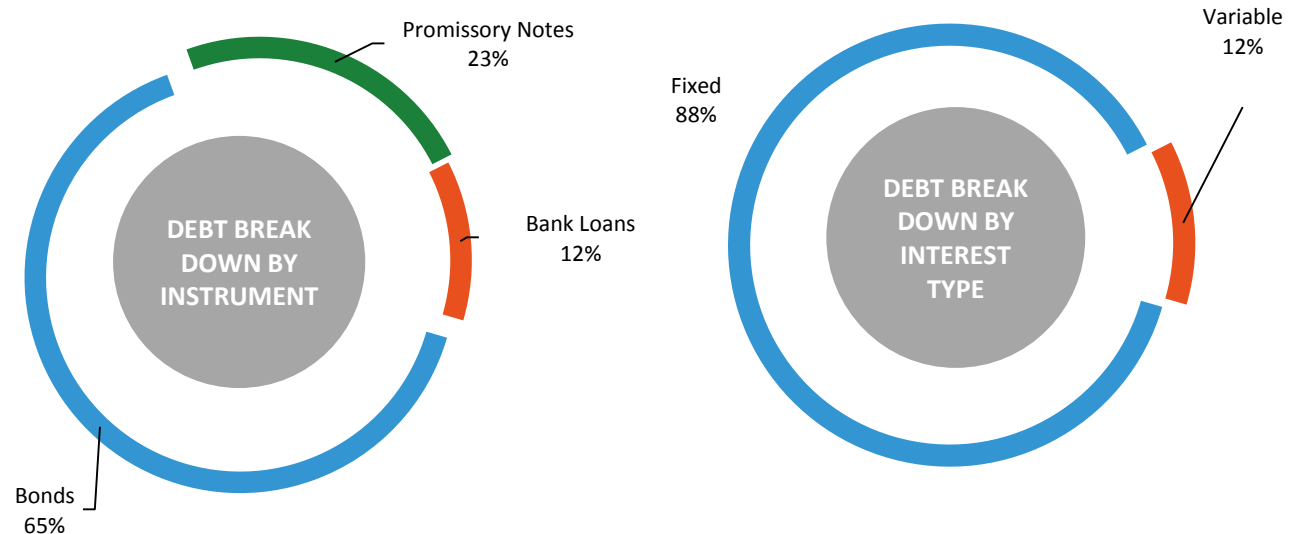
**Net Income & Net Income Margin**



# DEBT STRUCTURE AS OF MARCH 31 2017



- Leverage: **1.41x** Limit: **1.91**
- Coverage of Financial Expenses: **8.30x**
- Local Credit Rating: **AA+**
- Total Net Financial Debt: **CLP 808 billion**
- Net Debt / EBITDA\* Ratio: **2,73x**



28(\*) EBITDA last 12 months

---

# AGUAS ANDINAS INVESTOR RELATIONS CONTACT DETAILS

- **Stephanie Baier Arocha**
  - Head of Investor Relations
  - Email: [sbaiera@aguasandinas.cl](mailto:sbaiera@aguasandinas.cl)
  - Phone: +562 2569 2301
  - Address: Avda. Presidente Balmaceda N°1398, 14<sup>th</sup> floor, Santiago, Chile

”

**The future is  
built, starting  
today.**