

Assessment of the Impact of COVID on Water and Sanitation Utilities in Latin America and the Caribbean

June 13th, 2022



Agenda

1. Summary of Impact of Covid on countries in LAC
2. Overview of water utilities surveyed for this assessment
3. Assessment of the impacts of COVID on the surveyed water and sanitation utilities
4. Conclusions of the impact of COVID on the surveyed utilities



1. Summary of Impact of Covid on countries in LAC



COVID has rapidly spread across Latin America, reaching 15 million confirmed cases by the end of December 2020

- Health impacts for the region have been significant. LAC reached 815 deaths per 1 million inhabitants.
- Across the region there are large differences in the health impacts of the pandemic.
- Argentina, Brazil, Chile, Colombia, Mexico, Panama, and Peru have more than 800 deaths per 1 million inhabitants, while Dominica, Haiti, Nicaragua, Trinidad and Tobago, and Uruguay have reported fewer than 100 deaths per 1 million inhabitants.
- In addition to the health risks, measures taken by governments to address COVID and risk-aversion from households and firms restricted activity in the formal sector.

2. Overview of water utilities surveyed for this assessment



21 water utilities from 10 countries in the region were surveyed

- Different service area characteristics, different sizes, and different financial and operational performance (2019).
- For confidentiality purposes, proxies have been assigned for the names of the utilities, based on the region within LAC where the utilities are located.
- The regions and the acronyms used for each are: Andean (ANDEAN), Caribbean (CARIB), Central America (CENTAM), and Southern Cone (SOUTH)

The sample of utilities has a wide range of financial performance

Utility	Range of number of customers	EBITDA margin (%)	NRW (%)	Staff/1000 connections
ANDEAN 1	100,000 – 200,000	41.1%	31%	1.8
ANDEAN 2	100,000 – 200,000	32.1%	25%	2.7
ANDEAN 3	100,000 – 200,000	8.9%	52%	2.9
ANDEAN 4	100,000 – 200,000	-0.5%	31%	9.1
ANDEAN 5	Fewer than 100,000	NA	NA	NA
ANDEAN 6	Fewer than 100,000	NA	NA	NA
ANDEAN 7	Fewer than 100,000	31.7%	NA	NA
ANDEAN 8	Fewer than 100,000	18.5%	47%	NA
ANDEAN 9	Fewer than 100,000	NA	NA	NA
ANDEAN 10	Fewer than 100,000	47.7%	36%	NA
ANDEAN 11	100,000 – 200,000	NA	NA	NA
ANDEAN 12	Fewer than 100,000	11.5%	59%	NA
ANDEAN 13	Fewer than 500,000	45.1%	28%	NA
ANDEAN 14	100,000 – 200,000	38.1%	31%	2.22
CARIB 1	Fewer than 100,000	14.8%	62%	6.1
CARIB 2	200,001 – 500,000	-2.4%	73%	5.0
CARIB 3	100,000 – 200,000	1.3%	44%	6.5
CARIB 4	200,001 – 500,000	-204.8%	50%	12.8
CENTAM 1	Fewer than 100,000	37.5%	23%	4.8
CENTAM 2	More than 500,000	-76.2%	39%	4.5
SOUTH 1	200,001 – 500,000	28.3%	39%	NA

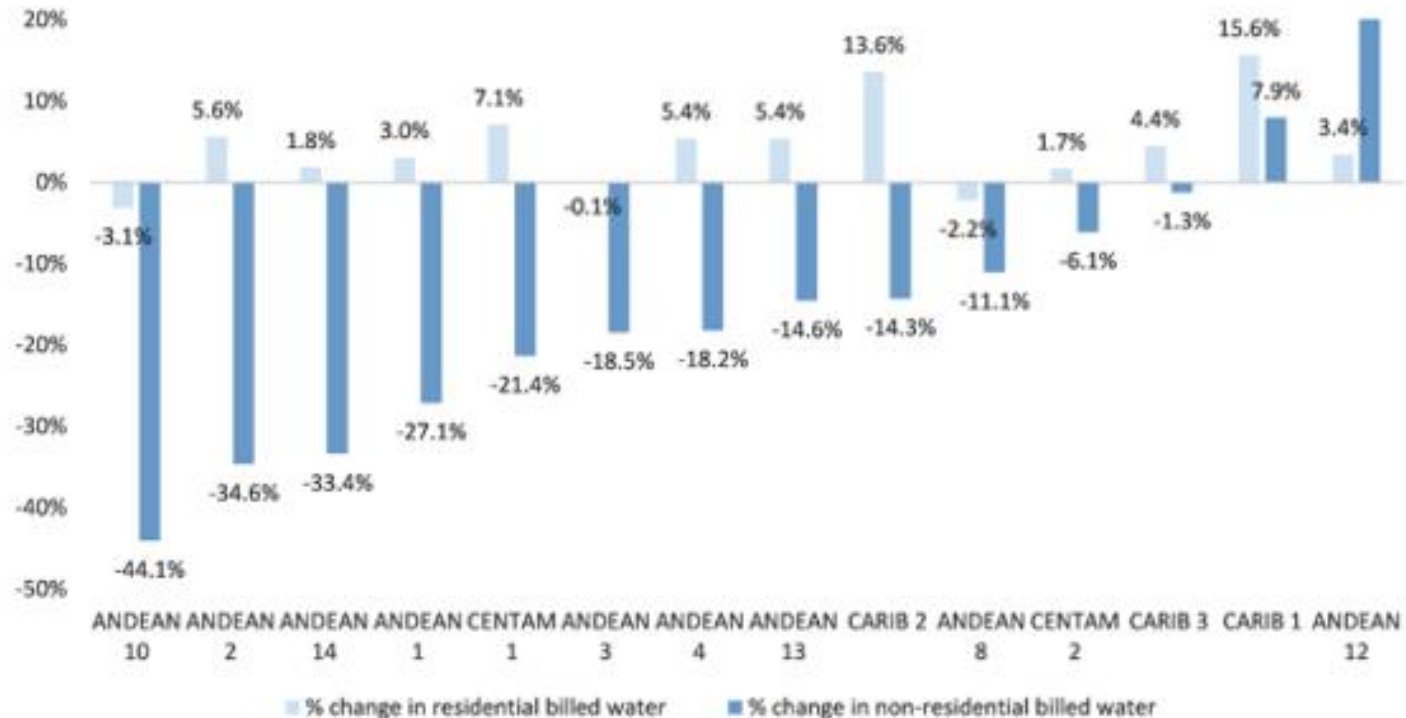
3. Assessment of the impacts of COVID on the surveyed water utilities



On average, a slight increase in consumption, with an increase in the share of residential consumption

- COVID had a clearly discernable impact on water utilities in LAC. Total consumption (measured as water billed to residential and non-residential customers) increased slightly but with a **marked increase in the share of residential consumption due to a decrease in non-residential consumption.**

Percentage change in consumption (Residential vs. Non-Residential)



Impact on volumes of water and Non-Revenue Water

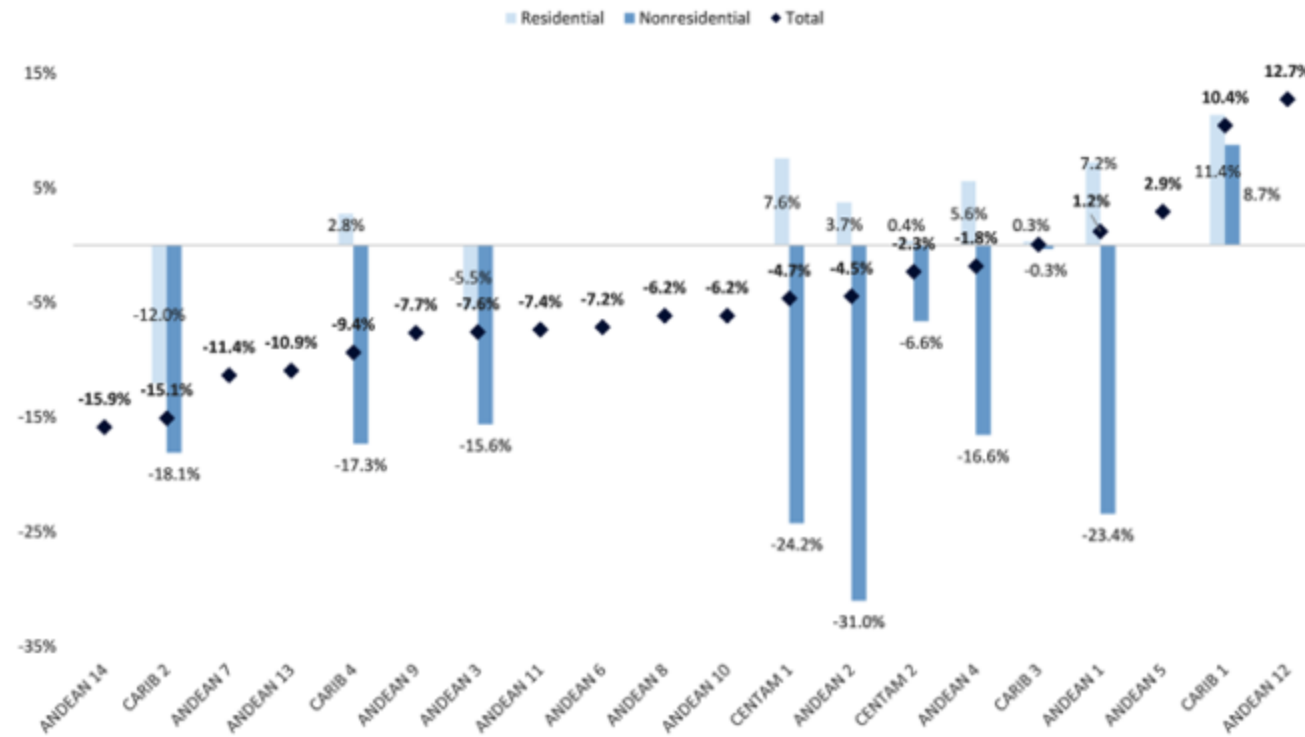
- For most of the surveyed utilities, COVID did not result in a significant change in the volumes of water supplied and NRW.
- The utilities with exceptions to this were ANDEAN 1, ANDEAN 3, ANDEAN 8, and ANDEAN 10

Changes in Consumption, Water Supply, and Volume of NRW

Utility	% change in total consumption	% change in water supplied	% change in NRW
ANDEAN 1	-3.3%	1.0%	10.8%
ANDEAN 2	-3.9%	-1.1%	-4.2%
ANDEAN 3	-2.4%	32.6%	61.0%
ANDEAN 8	-3.5%	17.4%	40.8%
ANDEAN 10	-17.4%	-2.4%	24.1%
ANDEAN 12	7.5%	3.8%	1.3%
ANDEAN 13	1.4%	0.0%	6.5%
ANDEAN 14	-6.2%	0.1%	12.2%
CENTAM 1	-1.3%	NA	NA
CENTAM 2	-0.2%	1.1%	-0.6%
CARIB 1	12.9%	NA	NA
CARIB 2	4.1%	3.2%	2.9%
CARIB 3	3.4%	-9.6%	-9.2%
CARIB 4	0.2%	0.2%	0.2%

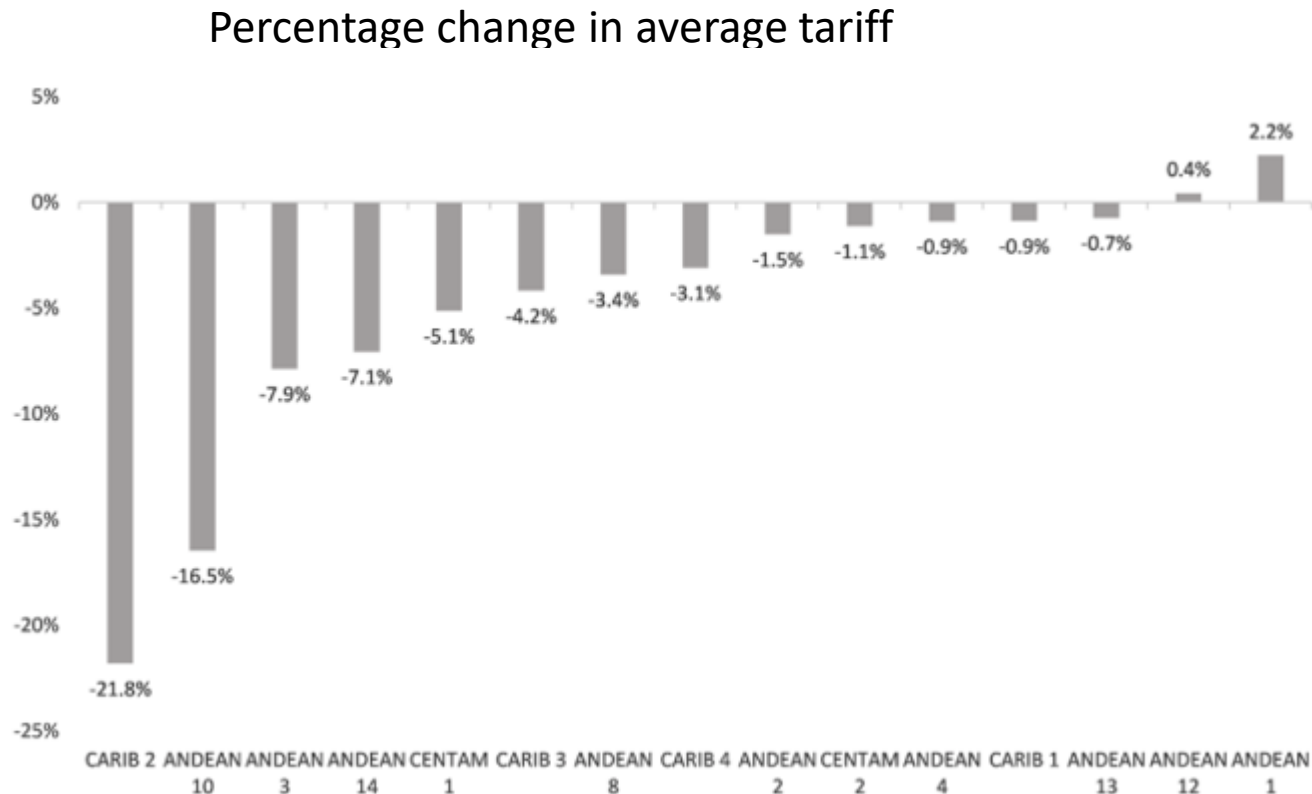
Impact on Total Revenues

- Led by large decreases in revenues from non-residential customers, total revenues from water and wastewater charges fell for 14 of the surveyed utilities.
- The figure below shows the percent changes in monthly average revenues from charges for water and wastewater from the pre-COVID period to the COVID period. These revenues fell for 14 of the utilities.



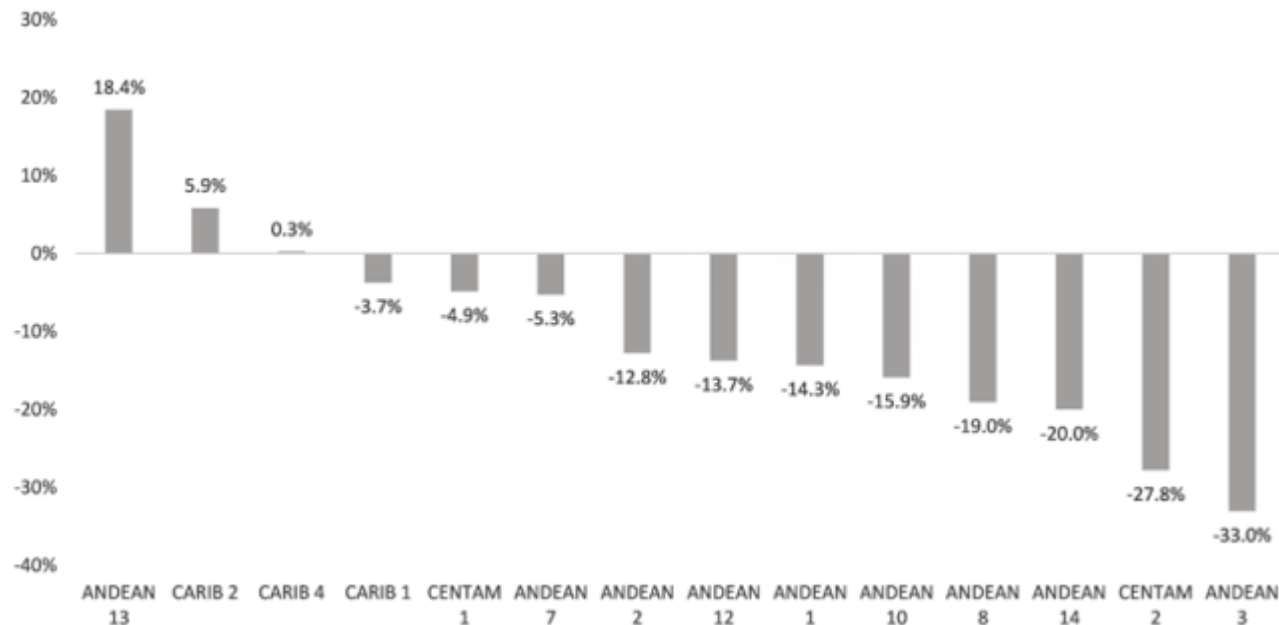
Impact on Average Tariffs

- The figure below shows that average tariffs, measured as revenues from water charges divided by billed water, fell for 12 of the 14 utilities for which we have data.
- The decrease in the share of non-residential consumption likely accounts for this fall in average tariffs.



Impact on Operating Expenses

- The figure below shows the changes in operating expenses (OPEX) from the pre-COVID period to the COVID period. Twelve of the utilities reported a decrease in OPEX.
- These decreases in OPEX may be due to several reasons, including the utilities having less cash available because of decreases in collections and logistical difficulties in carrying out activities related to operations and maintenance during lockdowns.



- Utilities may have reduced OPEX on items that were not perceived to be priorities (for example, repairs and maintenance).

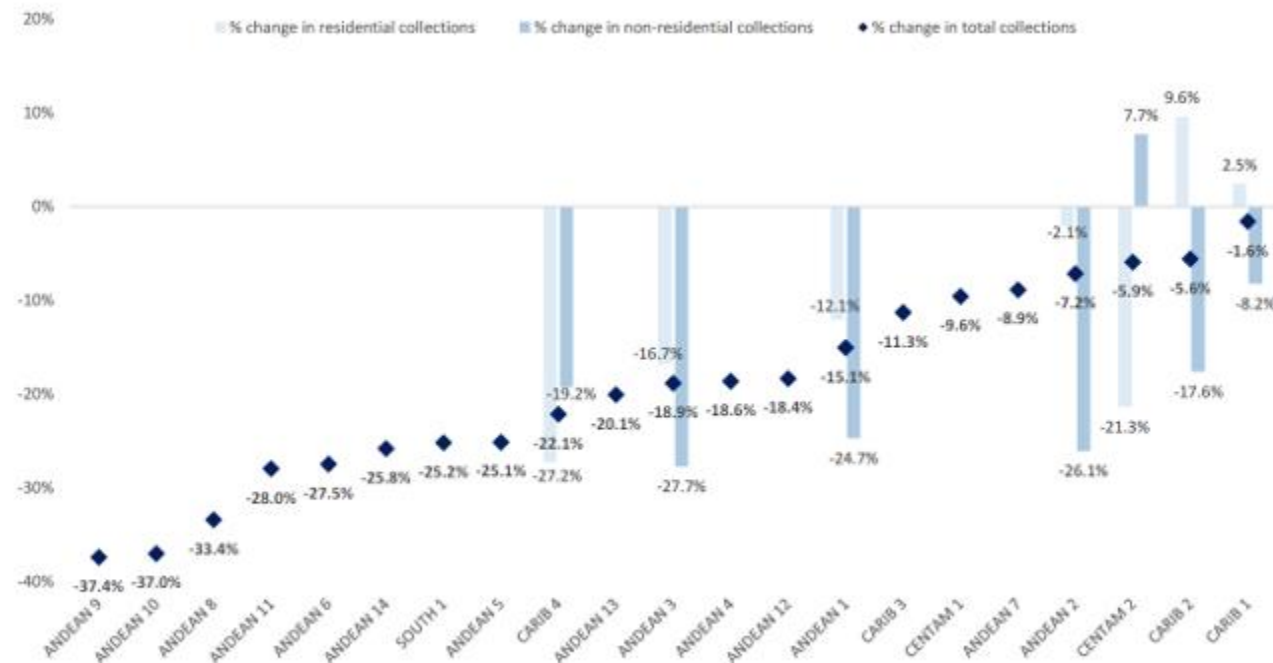
Decreases in operating expenses led to increased profitability for five of the surveyed utilities.

- Contrary to expectations, profitability, as measured by EBITDA and Net Income, increased for five of the utilities.
- The table below shows the EBITDA margin for the surveyed utilities for each of the two years prior to COVID (COVID-2 and COVID-1) and during COVID. Seven of the utilities had the highest EBITDA margin of the three periods.

Utility	COVID-2	COVID-1	COVID
ANDEAN 1	35.7%	41.1%	49.8%
ANDEAN 2	31.3%	32.1%	39.6%
ANDEAN 3	7.9%	8.9%	39.1%
ANDEAN 4	1.5%	-0.5%	4.0%
ANDEAN 7	15.9%	31.7%	26.9%
ANDEAN 8	-11.2%	18.5%	25.6%
ANDEAN 10	89.7%	47.7%	43.6%
ANDEAN 12	12.9%	11.5%	NA
ANDEAN 13	42.1%	45.1%	30.4%
ANDEAN 14	39.3%	38.1%	31.8%
SOUTH 1	18.1%	28.3%	29.1%
CARIB 1	-8.8%	14.8%	25.4%
CARIB 2	2.8%	-2.4%	-10.7%
CARIB 3	1.3%	NA	NA
CARIB 4	-175.9%	-204.8%	-236.7%
CENTAM 1	38.0%	37.5%	34.8%
CENTAM 2	-42.6%	-76.2%	-28.5%

Collections from customers fell in all utilities

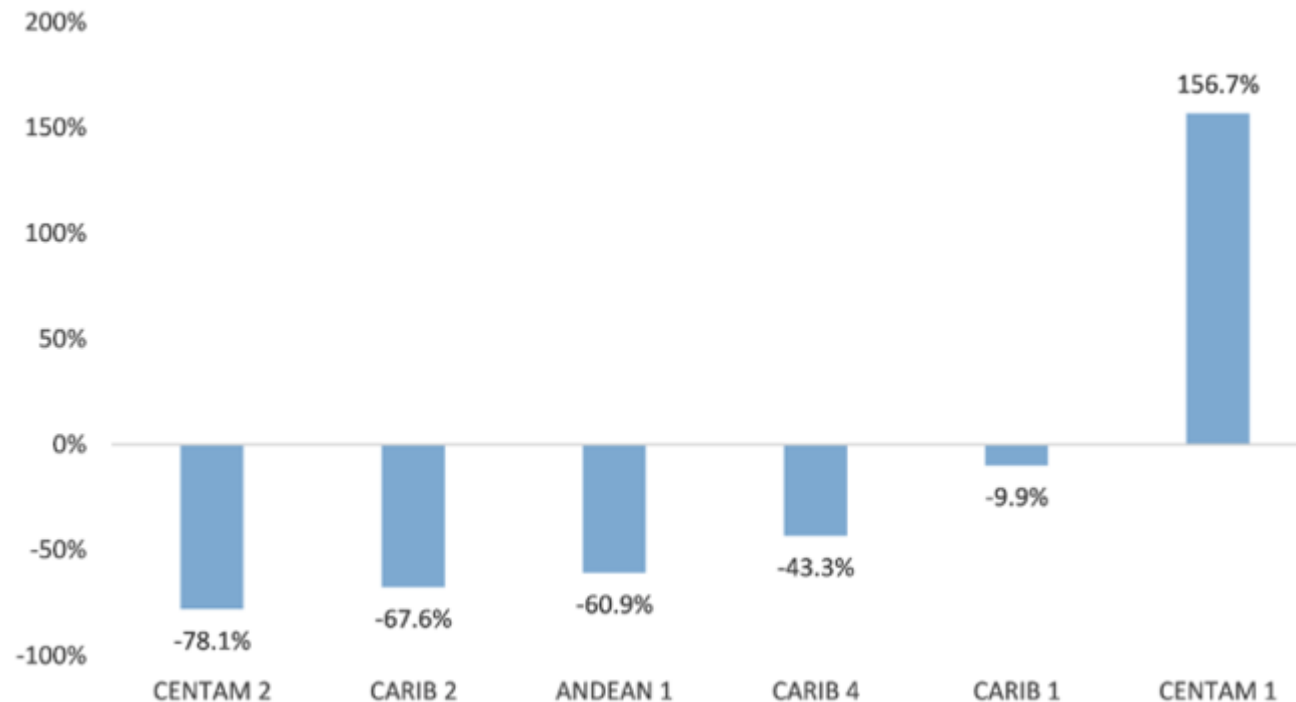
- The figure shows the percent change in monthly average collections from the pre-COVID period to the COVID period. This change is shown for all customers and is then differentiated by residential and non-residential customers



Capital expenditures declined an average of about 50 percent in five of the six surveyed utilities with relevant data.

- The figure shows the percent change in monthly average collections from the pre-COVID period to the COVID period. This change is shown for all customers and is then differentiated by residential and non-residential customers

Capex: Pre-Covid vs. Covid



4. Conclusions of the impact of COVID on the surveyed utilities



Conclusions

- Among the most important impacts of COVID on the surveyed utilities were a shift toward a larger share of residential consumption due to a decrease in non-residential consumption (and the related decrease in average tariffs), a decrease in revenues and collections, reductions in capital expenditures, and increases in profitability.
- Increases in profitability resulted from decreases in operating expenses, which, when combined with reductions in capital expenditures, may deteriorate operating efficiency, quality of service, and access.
- In other words, reductions in operating expenses did not result from increases in efficiency, but, rather, appear to be the result of the utilities foregoing certain essential activities and their associated costs. In contrast, well-performing utilities will generate profitability while carrying out adequate levels of operating expenses and making capital investments required to achieve targets related to access, quality of service, and operating efficiency.
- Further research is needed to identify COVID's full impacts.

Thank you!

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