



Benchmarking Exercise

Material prepared for Int. Benchmarking Exercise

data spreadsheet of

Nicewater

(Utility #3)

Full list of variables

Nicewater

Variable Name	Category	Nicewater
Terrain ()	Context information	Flat-Hilly
Disposable income per household (€)	Context information	9,000
CI-008 Type of system ()	Context information	Both bulk water supply and direct distribution
CI-014 Supply area (km ²)	Context information	364
CI-023 Protection area (km ²)	Context information	77
CI-026 Number of treatment plants (No.)	Context information	21
CI-NEW-001 Responsible for service connection ()	Context information	no
CI-002 Type of activity ()	Context information	water supply and wastewater
CI-003 Type of assets ownership ()	Context information	Public
CI-004 Type of operations (management)	Context information	Public
zCI-095 Upland surface water sources (m ³)	Context information	0
zCI-096 Lowland surface water sources (m ³)	Context information	20,289,990
zCI-097 Natural springs and wetland sources (m ³)	Context information	0
zCI-098 Well water sources (m ³)	Context information	0
zCI-099 Borehole water sources (m ³)	Context information	35,846,962
zCI-100 Saline and brackish water sources (m ³)	Context information	0
zCI-NEW-001 Vat return ()	Context information	yes
zCI-NEW-002 Asset valuation method ()	Context information	aquisition cost, manufacturing cost, original value, aquisition cost adjusted by the effective interest rate, amount of due receivables, net sale price (possible to earn), fair value, market value, nominal value
zCI-NEW-007 VAT on top of bill	Context information	yes
E-005 Resident population (No.)	Demography and customer	777,500
E-006 Direct customer meters (No.)	Demography and customer	248,078
E-009 Bulk customer meters (No.)	Demography and customer	15
E-010 Registered customers (No.)	Demography and customer	69,942
E-011b Bulk registered customers (No.)	Demography and customer	7
zE-001 Total connected properties (No.)	Demography and customer	291,662
E-001 Residential properties supplied (No.)	Demography and customer	282,202
E-001a Non-residential properties supplied (No.)	Demography and customer	9,460
E-007 Residential customer meters (No.)	Demography and customer	264,705
E-008 Non-residential customer meters (No.)	Demography and customer	8,079
E-011 Residential registered customers (No.)	Demography and customer	65,205
E-011a Non-residential registered customers (No.)	Demography and customer	4,730
G-001 Total revenues (€)	Financial	37,690,097

Full list of variables

Nicewater

Variable Name	Category	Nicewater
G-002a Operating revenues from drinking water activities (€)	Financial	37,780,554
G-002b Operating revenues from non drinking water activities (€)	Financial	245,668
G-003 Sales revenues (€)	Financial	36,632,215
G-032 Investment in tangible assets (€)	Financial	12,013,680
G-035 Capitalised costs of self constructed assets (€)	Financial	90,457
G-036 Water sales revenues from direct consumption (€)	Financial	36,111,207
G-037 Water sales revenues from exported water (€)	Financial	521,009
zCI-NEW-001a Vat return amount (€)	Financial	1,615,302
zG-NEW-001 Residential connection fee (€)	Financial	
zG-NEW-002 Indirect taxes (€)	Financial	2,530,419
zG-NEW-004 Percentage of indirect taxes on residential water bill (%)	Financial	7
G-004 Total costs (€)	Financial	34,950,503
G-005 Running costs (€)	Financial	25,297,819
G-006 Capital costs (€)	Financial	9,652,684
G-007 Operational costs (€)	Financial	18,007,625
G-008 Internal manpower costs (€)	Financial	7,290,194
G-009 External services costs (€)	Financial	5,024,339
G-010 Imported raw and drinking water costs (€)	Financial	72,073
G-011 Electrical energy costs (€)	Financial	2,982,889
G-012 Purchased merchandises (€)	Financial	2,357,438
G-013 Leasing and rentals (€)	Financial	18,660
G-014 Taxes, levies and fees (€)	Financial	6,226,450
G-015 Exceptional earnings and losses (€)	Financial	0
G-016 Other operating costs (€)	Financial	1,325,775
G-028 Depreciation costs (€)	Financial	8,994,068
G-029 Interest expenses costs (€)	Financial	1,195,558
G-030 Interest income (€)	Financial	536,943
G-031 Net interest (€)	Financial	658,616
G-033 Investments for new assets (€)	Financial	2,573,289
G-034 Investments for asset replacements (€)	Financial	8,958,770
G-036a Water sales revenues from residential consumption (€)	Financial	25,032,231
G-036b Water sales revenue from non-residential consumption (€)	Financial	11,078,976
G-048 Shareholder's equity (€)	Financial	91,522,204
G-050 Total assets (€)	Financial	193,678,952
CI-053 Average mains age (years)	Operational	27
D-001 Pumping energy consumption (kWh)	Operational	34,382,414
D-005 Energy recovery (kWh)	Operational	
D-028 Mains failures (No.)	Operational	963
D-028a Mains failures caused by third parties (No.)	Operational	6
D-028b Mains failures under own responsibility (No.)	Operational	957
D-038 Days with restrictions to water service (days)	Operational	0
D-051 Drinking water quality tests carried out (No.)	Operational	65,335
D-053 Aesthetic tests carried out (No.)	Operational	8,954
D-054 Microbiological tests carried out (No.)	Operational	15,366
D-055 Physical-chemical tests carried out (No.)	Operational	41,015
D-056 Radioactivity tests carried out (No.)	Operational	0
D-062 Compliance of aesthetic tests (No.)	Operational	8,535
D-063 Compliance of microbiological tests (No.)	Operational	14,871
D-064 Compliance of physical-chemical tests (No.)	Operational	40,646

Full list of variables

Nicewater

Variable Name	Category	Nicewater
D-065 Compliance of radioactivity tests (No.)	Operational	0
D-20 Mains rehabilitation (km)	Operational	6
D-21 Mains renovation (km)	Operational	0
D-22 Mains replacement (km)	Operational	6
zD-NEW-001 Treatment residuals (tons D.S.)	Operational	108
zD-NEW-002 Wasted treatment residu (tons D.S.)	Operational	0
B-001 Total personnel (FTE)	Personnel	457
B-018 Total training time (hours)	Personnel	
zB-001 Total FTE normalised (FTE)	Personnel	457
zB-025 Nominal working week length (hours/week)	Personnel	40
C-008 Mains length (km)	Physical assets	1,829
C-024 Service connections (No.)	Physical assets	64,897
zC-024 New service connections (No.)	Physical assets	
C-024a Residential service connections (No.)	Physical assets	55,825
C-024b Non-residential service connections (No.)	Physical assets	9,072
F-001 Population supplied (No.)	Quality of service	742,513
zF-015 Total complaints (No.)	Quality of service	
F-015 Service complaints (No.)	Quality of service	110
F-016 Pressure complaints (No.)	Quality of service	3
F-017 Continuity complaints (No.)	Quality of service	3
F-018 Water quality complaints (No.)	Quality of service	99
F-019 Complaints on interruptions (No.)	Quality of service	5
F-020 Billing complaints and queries (No.)	Quality of service	293
F-021 Other complaints and queries (No.)	Quality of service	
A-003 System input volume (m3)	Water volume	56,223,242
A-007 Exported drinking water (m3)	Water volume	630,057
A-020 Revenue water (m3)	Water volume	42,263,478
A-021 Non revenue water (m3)	Water volume	13,959,764
zA-005 Imported raw water (m3)	Water volume	0
zA-007 Imported drinking water (m3)	Water volume	86,290
zA-020 Direct revenue drinking water (m3)	Water volume	41,633,421
zA-NEW-001 Total volume of abstracted raw water (m3)	Water volume	56,136,952
zA-NEW-002 Exported and direct revenue raw water (m3)	Water volume	0
zA-NEW-003 Net volume of raw water exchanged with storage (m3)	Water volume	0
A-006 Water produced (m3)	Water volume	54,187,723
A-019 Real losses (m3)	Water volume	9,998,028
A-021a Production losses (m3)	Water volume	1,949,229
A-021b Distribution losses and unbilled consumption (m3)	Water volume	12,010,535
zA-006 Distribution Input (m3)	Water volume	54,274,013
zA-020a Residential billed authorised drinking water (m3)	Water volume	29,574,053
zA-020b Non-residential billed authorised drinking water (m3)	Water volume	12,059,368
zA-NEW-004 Unbilled consumption and apparent losses (m3)	Water volume	2,012,507
zA-NEW-004a Unbilled consumption (m3)	Water volume	2,012,507
zA-NEW-004b Apparent losses (m3)	Water volume	1,479,222

Full list of PIs and context information

PI name	Category
CI-076 Network delivery rate (m ³ /km.year)	Context information
CI-061 Service connection density (No./km)	Context information
zCI-070 Total per capita consumption (l per capita per day)	Context information
zCI-072 Average consumption per property (m ³ / property)	Context information
CI-071 Residential consumption (l per capita per day)	Context information
zCI-072a Residential consumption per residential property (m ³ /property)	Context information
zCI-072b Consumption per non-residential property (m ³ /property)	Context information
NEW Population density DW (people/km ²)	Context information
NEW Produced water per treatment plant (m ³ /No.)	Context information
Fi-028 Average water charges for direct consumption (€/m ³)	Economic & Financial
Fi-029 Average water charges for exported water (€/m ³)	Economic & Financial
Pe-001 Employees per service connection (FTE/1000 connections)	Economic & Financial
zCI-071 Average water charges per connected property (€/property)	Economic & Financial
zPe-001 Personnel intensity (FTE/1000 properties)	Economic & Financial
Fi-004 Unit total costs (€/m ³)	Economic & Financial
Fi-005 Unit running costs (€/m ³)	Economic & Financial
Fi-006 Unit capital costs (€/m ³)	Economic & Financial
Fi-007 Internal manpower costs (%)	Economic & Financial
Fi-008 Portion of external services costs in running costs (%)	Economic & Financial
Fi-009 Portion of imported [raw and drinking] water costs in running costs (%)	Economic & Financial
Fi-010 Portion of electrical energy costs in running costs (%)	Economic & Financial
Fi-011 Portion of other costs in running costs (%)	Economic & Financial
Fi-023 Portion of depreciation costs in capital costs (%)	Economic & Financial
Fi-024 Portion of net interest costs in capital costs (%)	Economic & Financial
Fi-025 Unit investment (€/m ³)	Economic & Financial
Fi-026 Investments for new assets and reinforcement of existing assets (%)	Economic & Financial
Fi-027 Investments for asset replacement and renovation (%)	Economic & Financial
Fi-028a Average water charges for residential consumption (€/m ³)	Economic & Financial
Fi-028b Average water charges for non-residential consumption (€/m ³)	Economic & Financial
Fi-030 Total cost coverage ratio ()	Economic & Financial
Fi-031 Operating cost coverage ratio ()	Economic & Financial
Fi-045 Asset turnover ratio ()	Economic & Financial
Pe-002 Employees per water produced (FTE/10 ⁶ m ³)	Economic & Financial
zCI-071a Average water charges for residential properties (€/property)	Economic & Financial
zCI-071b Average water charges for non-residential properties (€/property)	Economic & Financial
zFi-NEW-001 Unit profit costs (€/m ³)	Economic & Financial
zFi-NEW-002 Equity ratio ()	Economic & Financial
zFi-030 Total cost by sales coverage ratio ()	Economic & Financial
zFi-031 Operating costs by sales ratio ()	Economic & Financial
Fi-NEW-020 Share of water bill in disposable household income (%)	Economic & Financial
Op-027 Real losses per connection (l/connection/day)	Operational
Op-028 Real losses per mains length (m ³ /km/day)	Operational
Op-031 Mains failures (No./100 km)	Operational
zOp-027 Distribution losses per connection (m ³ /connection)	Operational
zOp-028 Distribution losses per mains length (m ³ /km/day)	Operational
zOp-031a Mains failures due to third parties (No./100 km)	Operational
zOp-031b Mains failures under own responsibility (No./100km)	Operational
zOp-023 Non-revenue water per connected property (m ³ / property)	Operational

Full list of PIs and context information

PI name	Category
Op-016 Mains rehabilitation (%/year)	Operational
Op-017 Mains renovation (%/year)	Operational
Op-018 Mains replacement (%/year)	Operational
zOp-NEW-001 Electricity use per m3 water produced (kWh/m3)	Operational
Pe-019 Total training (hours/employee)	Personnel
Ph-011 Customer meter density (meters/connection)	Physical
Ph-012 Metered customers (meters/customer)	Physical
zPh-012 Metered properties (%)	Physical
Ph-007 Energy recovery (%)	Physical
QS-003 Population coverage (%)	Quality of service
zQS-003 Household size (people/property)	Quality of service
QS-017 Days with restrictions to water service (%)	Quality of service
QS-026 Service complaints per connection (complaints/1000 connections)	Quality of service
QS-027 Service complaints per customer (complaints/ 1000 customers)	Quality of service
QS-028 Pressure complaints (%)	Quality of service
QS-029 Continuity complaints (%)	Quality of service
QS-030 Water quality complaints (%)	Quality of service
QS-031 Interruption complaints (%)	Quality of service
QS-032 Billing complaints and queries per customer (complaints/1000 customers)	Quality of service
QS-033 Other complaints & queries per customer (complaints/1000 customers)	Quality of service
zQS-027 Service complaints per connected property (complaints/1000 properties)	Quality of service
QS-018 Quality of supplied water (%)	Quality of service
QS-019 Aesthetic tests compliance (%)	Quality of service
QS-020 Microbiological tests compliance (%)	Quality of service
QS-021 Physical-chemical tests compliance (%)	Quality of service
QS-022 Radioactivity tests compliance (%)	Quality of service
zQS-NEW-001 Drinking water quality tests carried out per connection (tests/1000 connections)	Quality of service
zQS-NEW-001a Drinking water quality tests carried out per m3 drinking water (tests/1000 m3)	Quality of service
zWR-001 Inefficiency of use of water resources (%)	Water resources
zWR-001a Inefficiency of use of water production (%)	Water resources

Final list of PIs and context information

Nicewater

PI name	Category	Nicewater PI value	Nicewater Accuracy	Nicewater Reliability
CI-076 Network delivery rate (m ³ /km.year)	Context information	29,674.15		
CI-061 Service connection density (No./km)	Context information	35.48		
CI-071 Residential consumption (l per capita per day)	Context information	109.12		
Fi-029 Average water charges for exported water (€/m3)	Economic & Financial	0.83	0-5%	***
Pe-001 Employees per service connection (FTE/1000 connections)	Economic & Financial	7.04	0-5%	***
zCI-071 Average water charges per connected property (€/property)	Economic & Financial	123.81		
Fi-028a Average water charges for residential consumption (€/m3)	Economic & Financial	0.85	0-5%	***
Fi-028b Average water charges for non-residential consumption (€/m3)	Economic & Financial	0.92	0-5%	***
Fi-030 Total cost coverage ratio ()	Economic & Financial	1.08	0-5%	***
Fi-031 Operating cost coverage ratio ()	Economic & Financial	1.49	0-5%	***
zCI-071a Average water charges for residential properties (€/property)	Economic & Financial	88.70		
zCI-071b Average water charges for non-residential properties (€/property)	Economic & Financial	1,171.14		
zFi-030 Total cost by sales coverage ratio ()	Economic & Financial	1.05	0-5%	***
zFi-031 Operating costs by sales ratio ()	Economic & Financial	1.45	0-5%	***
Fi-NEW-020 Share of water bill in disposable household income (%)	Economic & Financial	1.05	5-20%	***
zOp-027 Distribution losses per connection (m3/connection)	Operational	185.07	5-20%	**
zOp-028 Distribution losses per mains length (m3/km/day)	Operational	17.99	5-20%	**
zOp-NEW-001 Electricity use per m3 water produced (kWh/m3)	Operational	0.63	5-20%	**
zPh-012 Metered properties (%)	Physical	85.06	0-5%	***
QS-003 Population coverage (%)	Quality of service	95.50	0-5%	**
QS-017 Days with restrictions to water service (%)	Quality of service	0.00	0-5%	***
zQS-027 Service complaints per connected property (complaints/1000 properties)	Quality of service	0.38	5-20%	**
QS-018 Quality of supplied water (%)	Quality of service	98.04	0-5%	***
zWR-001 Inefficiency of use of water resources (%)	Water resources	24.83	5-20%	**