

مؤسسة مياه  
لبنان الجنوبي  
SOUTH LEBANON  
WATER ESTABLISHMENT



# SLWE STRATEGY 2020-2025

(The PDF version was created with maximum suitable content for printing from  
the original presentation show)

## **Vision**

**Water for everyone in the South within 3-5 years**

## **Mission**

**Non intermittent quality water supply in an optimized cost and environment friendly manner to allow for adequate human and infrastructure development and customer satisfaction**





## 1.0 Consistent water supply (1/7)

### Increase of water production



Exploitation of new water resources and expansion of usage of present water resources



Increase capacity of existing water production facilities

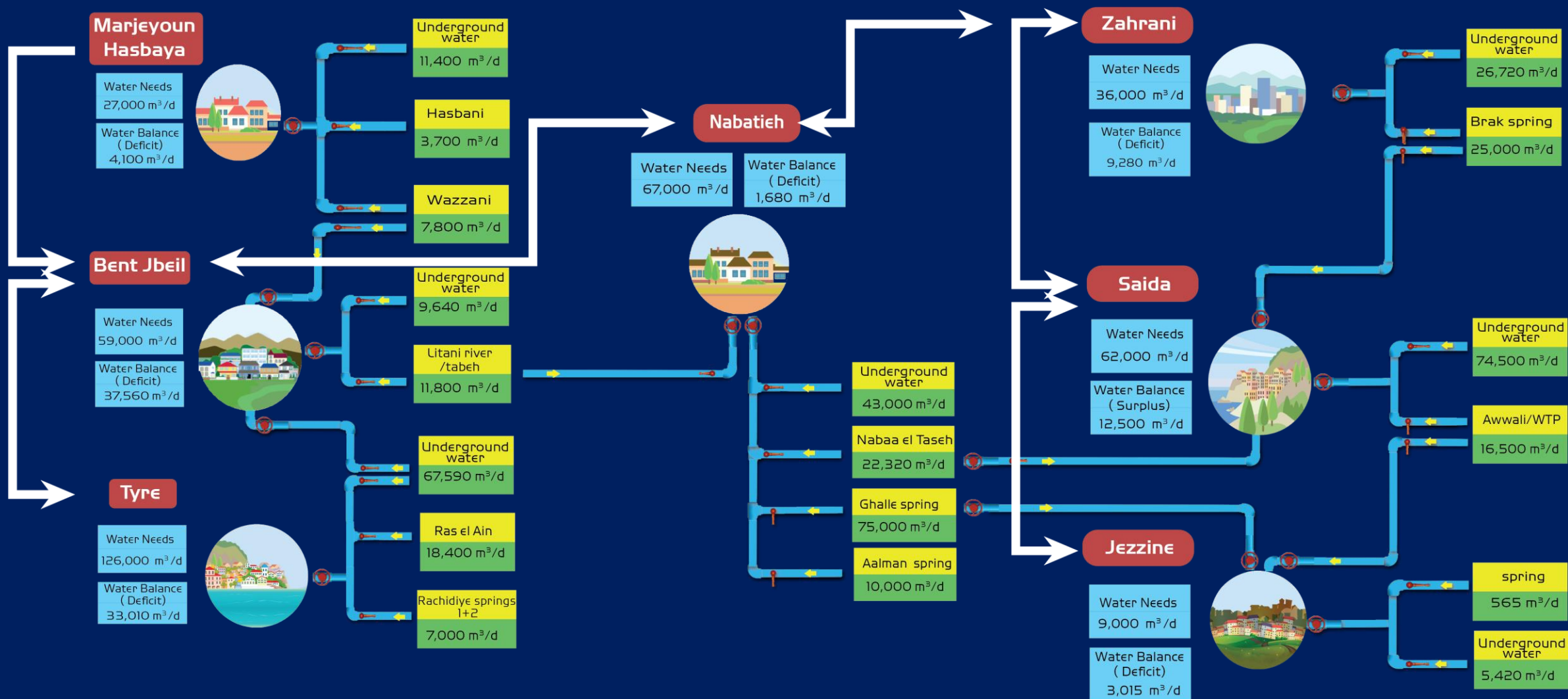


Adequate Human qualification





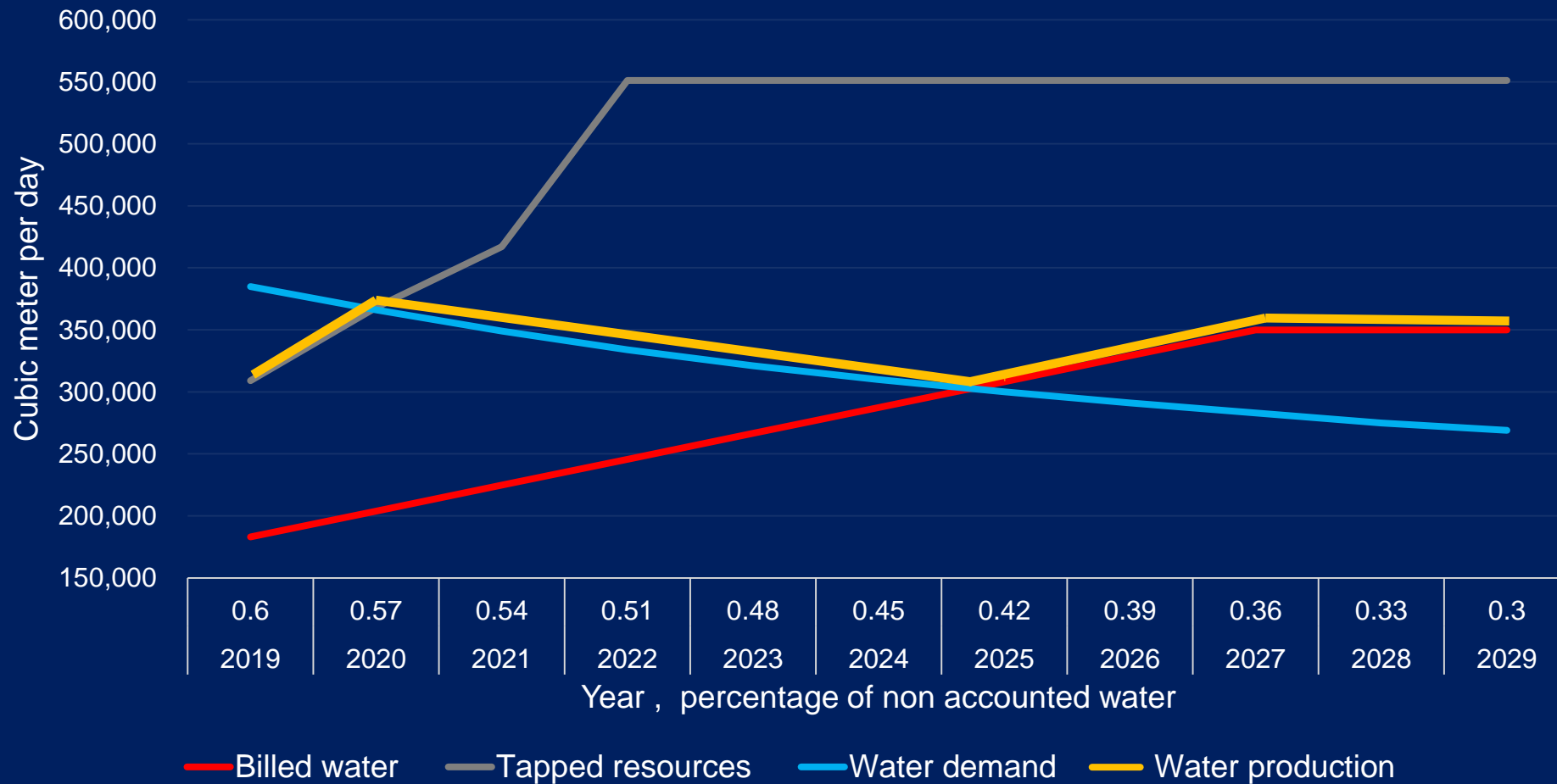
## 1.1 Consistent water supply (2/7)





## 1.2 Consistent water supply (3/7)

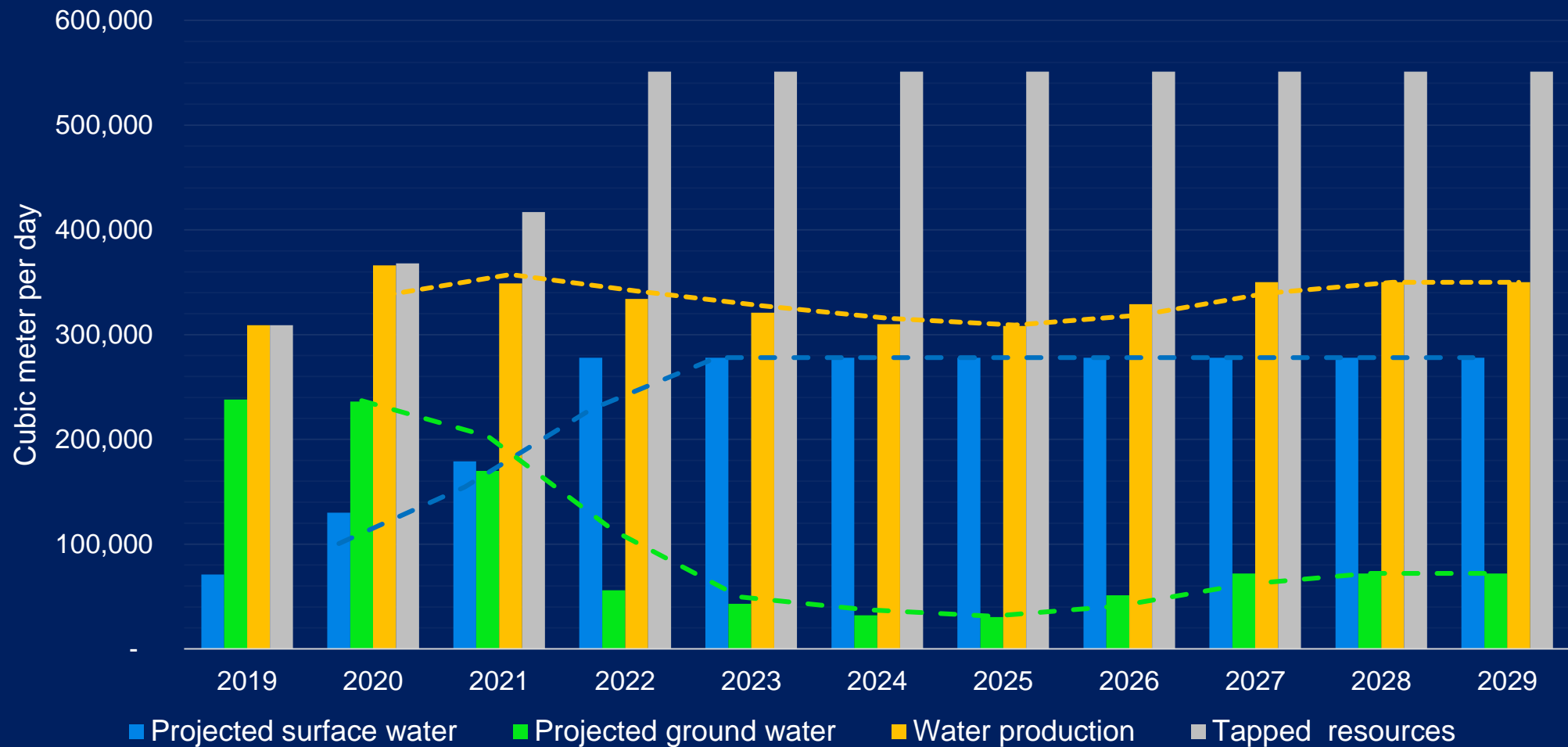
Water demand vs. Tapped resources





## 1.3 Consistent water supply (4/7)

Surface water vs. Ground water





## 1.4 Consistent water supply (5/7)

Development / Rehabilitation of water networks

Increase storage capacity

Ensure that all towns and villages are appropriately supported by water service infrastructure

Build new reservoirs to increase storage capacity



Advance network monitoring and control



Rehabilitate water networks to reduce leakage



Develop interconnection among area networks







## 1.5 Consistent water supply (6/7)

### Automation



Optimize water  
resources



Optimize water  
distribution



Monitor water flow and  
quality





## 1.6 Consistent water supply (7/7)

### Power



Electric power  
reliability



Backup power supply



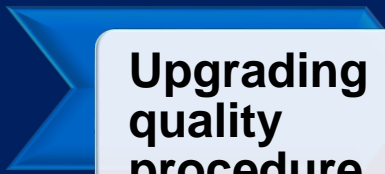
Renewable energy  
sources (solar, wind  
and hydraulic)



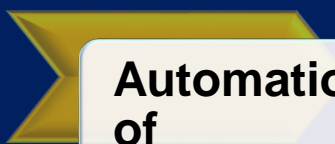


## 2.0 Drinking water quality (1/1)

### Water quality management program



Upgrading  
quality  
procedure



Automation  
of  
processes



Upgrading  
of labs



Control of  
pollution  
sources

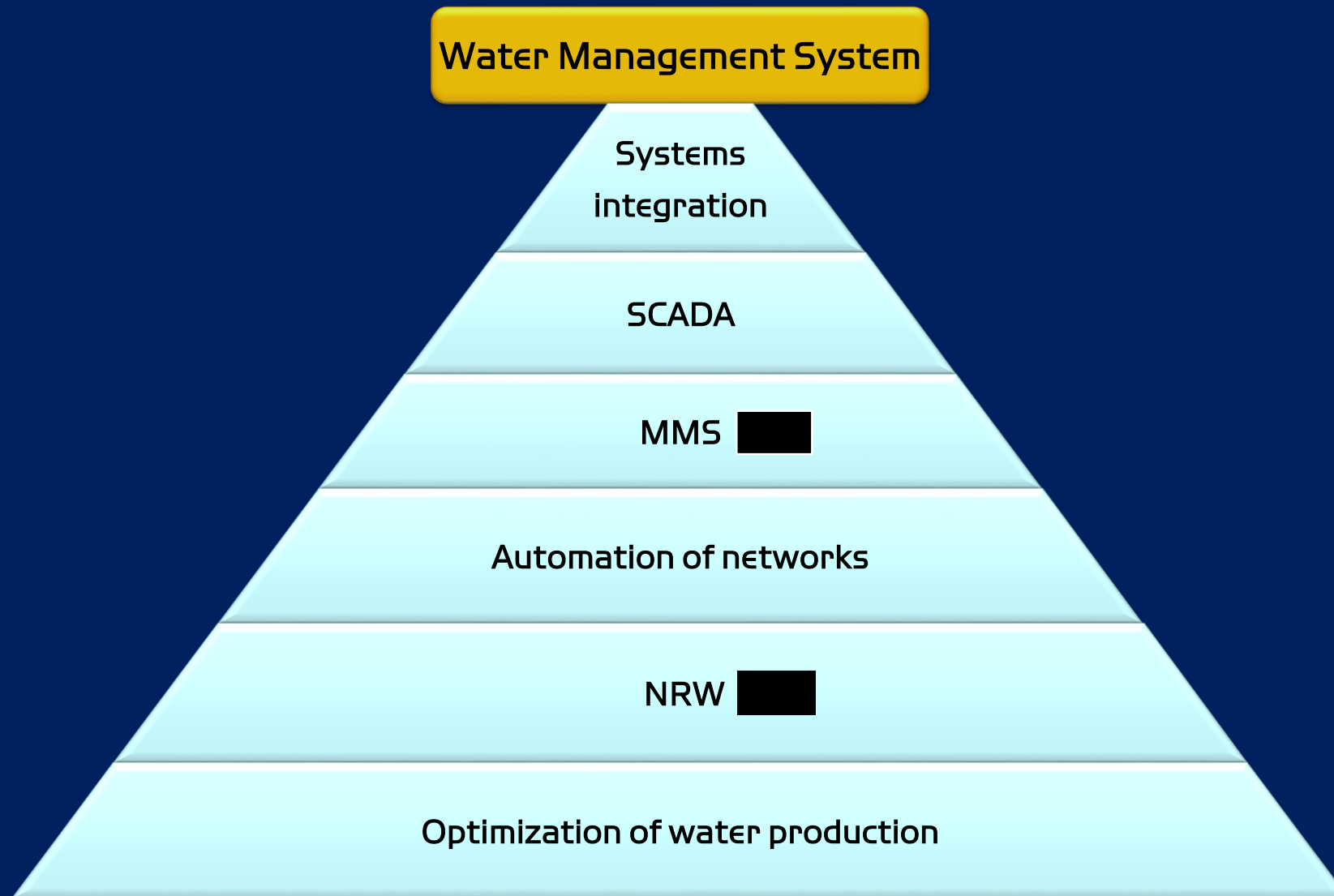


Enforcement  
of laws



## 3.0 Cost optimization (1/5)

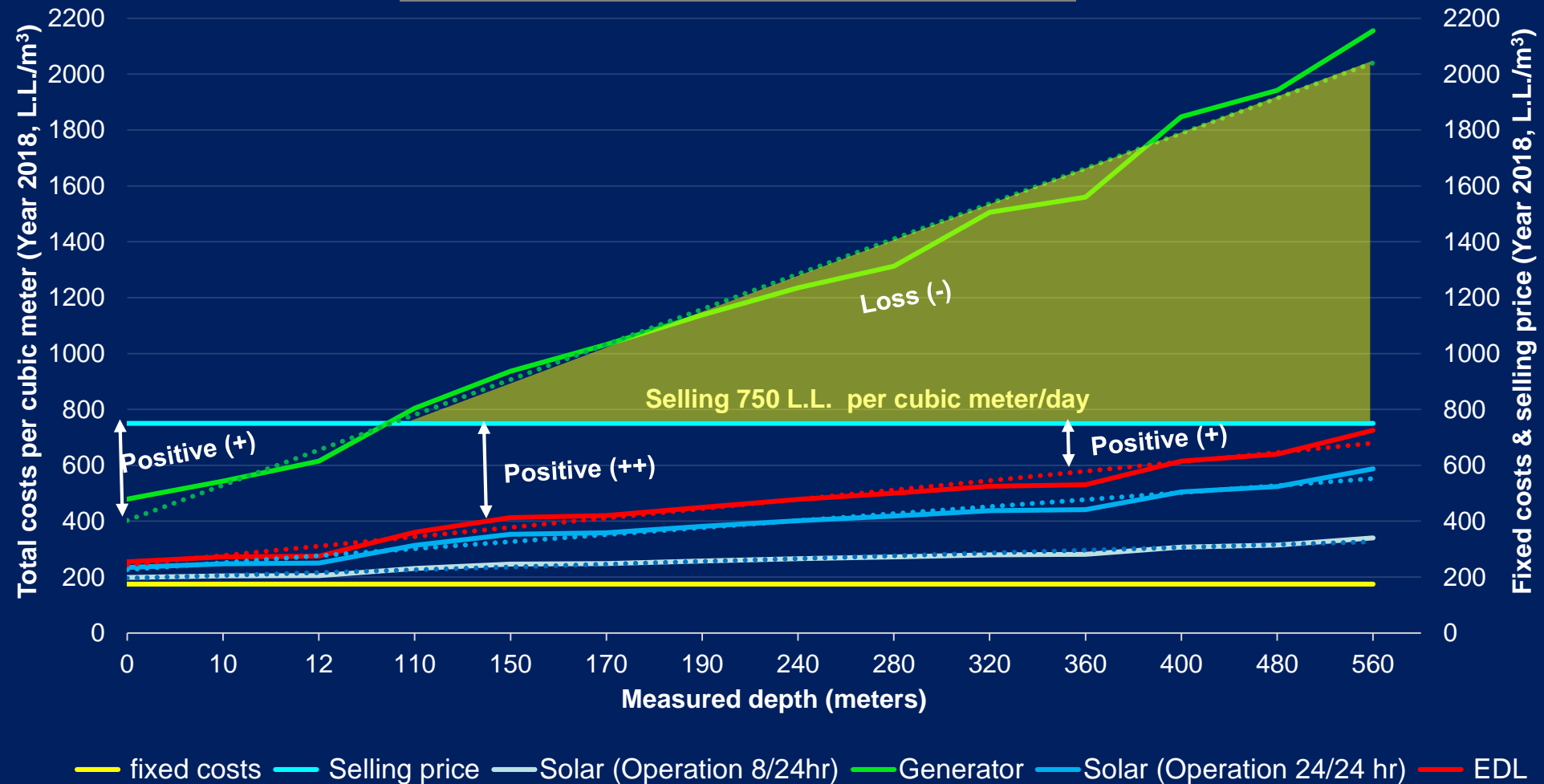
Control operation cost





## 3.1 Cost optimization (2/5)

### Cost of cubic meter by water depth





## 3.2

### Cost optimization (3/5)

Decrease power cost

(AUB water energy – NEXUS)



Increase equipment efficiency by replacement of old and inefficient pumps and include variable speed controls and intelligent programming of their operation



Introduce renewables for consistent levels of service at least cost

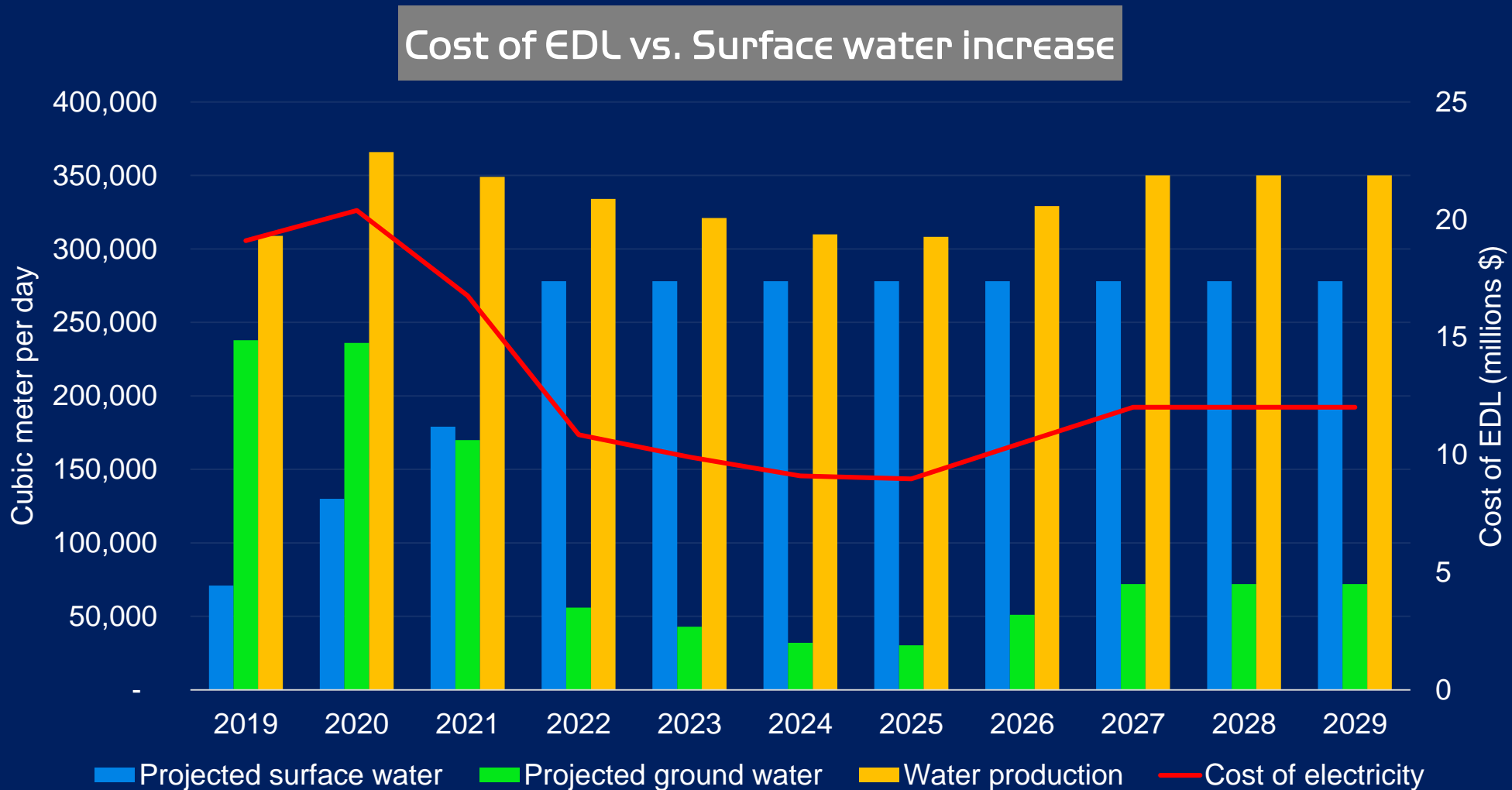


Plan the water supply in accordance to seasonal demand to reduce unnecessary power consumption



### 3.3

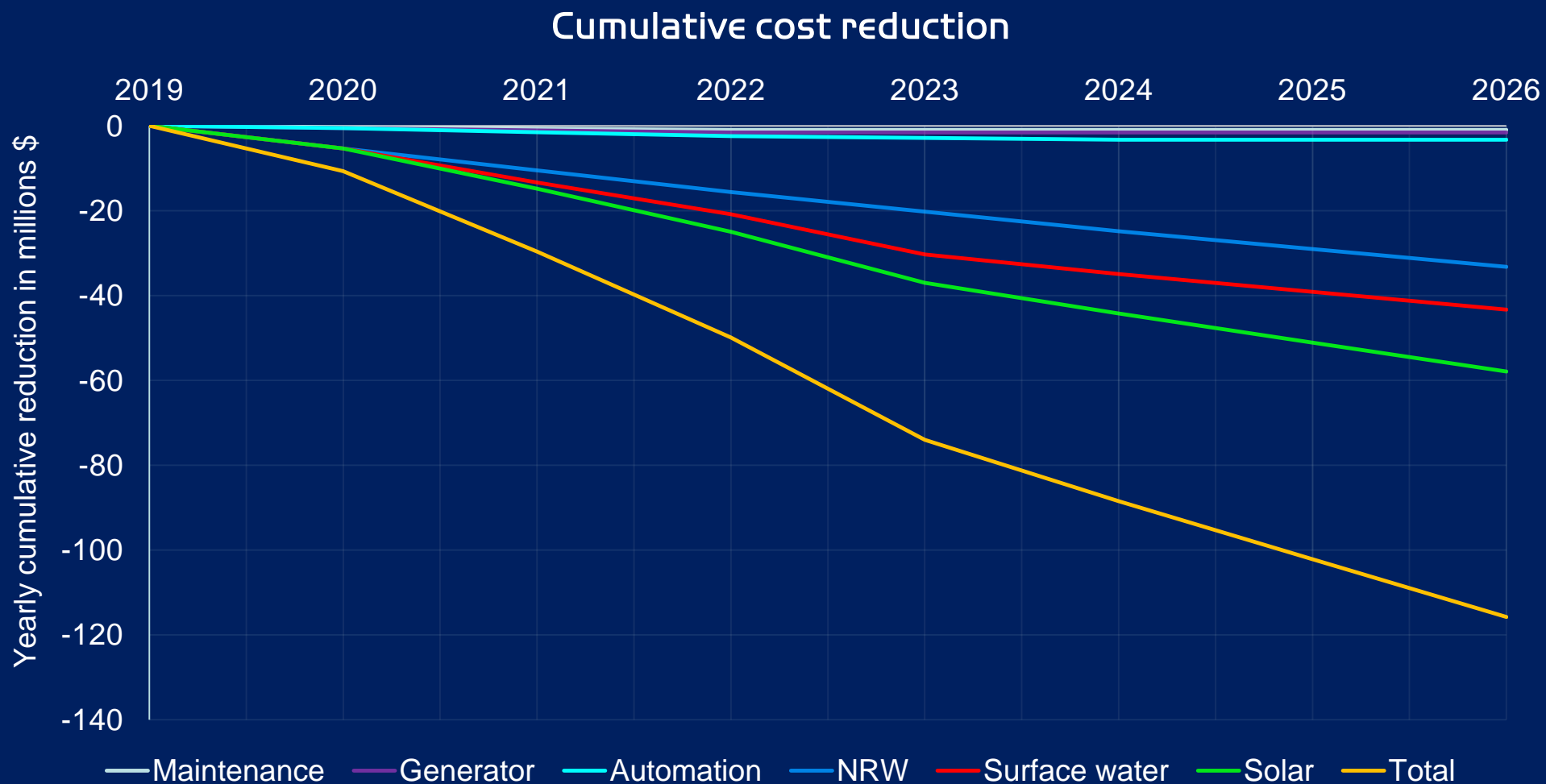
## Cost optimization (4/5)





## 3.4

## Cost optimization (5/5)







## 4.0 Customer satisfaction (1/1)



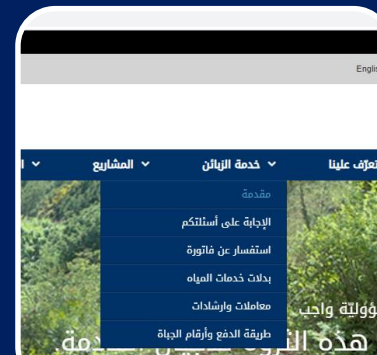
Customer  
service



Call center



Customer  
interface  
(interactive  
platform, social  
media...)



Mobile  
application

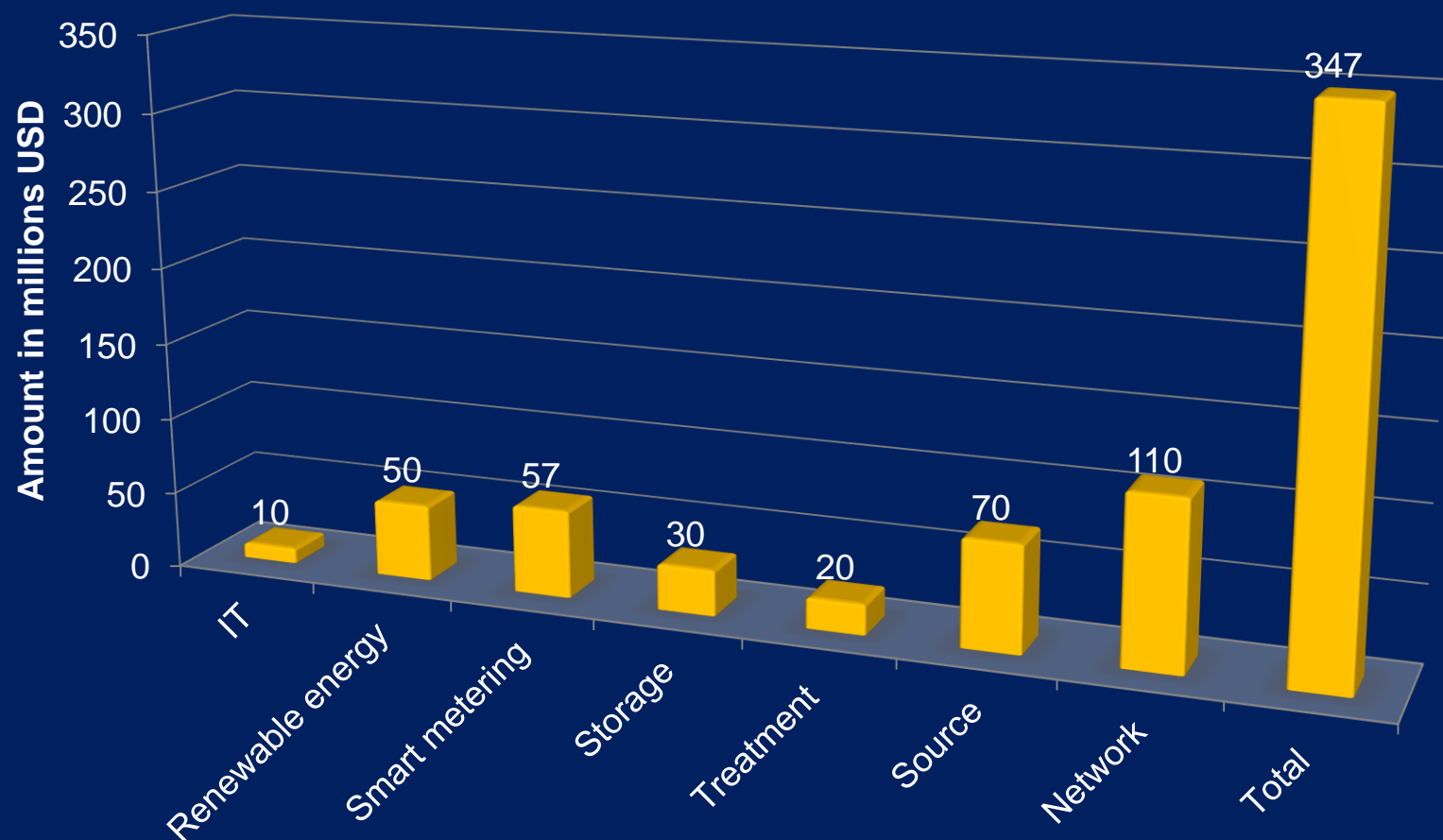


5.0

## Investments (1/7)

Capital needs for South Lebanon water infrastructure 2020-2025

Estimates of Investments by project type





## 5.1

### Investments (2/7)

#### Capital needs for South Lebanon water infrastructure 2020-2025

Amounts in millions USD

| Region               | Network    | Source    | Treatment | Storage   | Smart metering | Renewable energy | IT        | Total by region |
|----------------------|------------|-----------|-----------|-----------|----------------|------------------|-----------|-----------------|
| Saida                | 15         | 10        | 4         | 6         | 17             | 7                | 2         | 61              |
| Jezzine              | 2          | 2         | 0         | 1         | 2              | 7                | 1         | 15              |
| Zahrani              | 15         | 10        | 0         | 5         | 5              | 8                | 1         | 44              |
| Sour                 | 15         | 15        | 1         | 5         | 12             | 7                | 2         | 57              |
| Bent Jbeil           | 21         | 6         | 5         | 4         | 7              | 7                | 1         | 51              |
| Nabatieh             | 12         | 20        | 5         | 4         | 10             | 7                | 1         | 59              |
| Marjeyoun/ Hasbaya   | 30         | 7         | 5         | 5         | 4              | 7                | 2         | 60              |
| <b>Total by type</b> | <b>110</b> | <b>70</b> | <b>20</b> | <b>30</b> | <b>57</b>      | <b>50</b>        | <b>10</b> | <b>347</b>      |

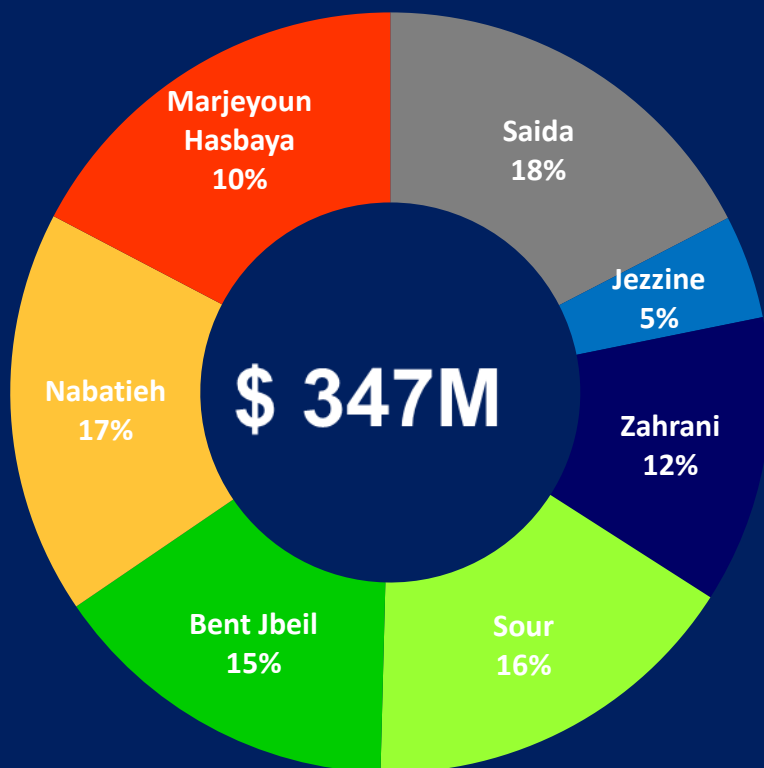


## 5.2

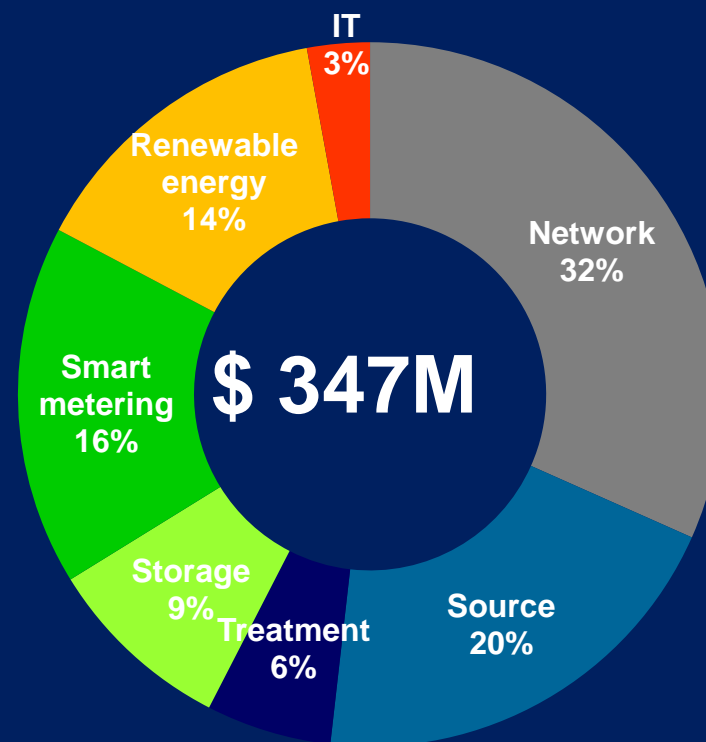
## Investments (3/7)

### Capital needs for South Lebanon water infrastructure 2020-2025

Investment needs by region



Investment needs by project type

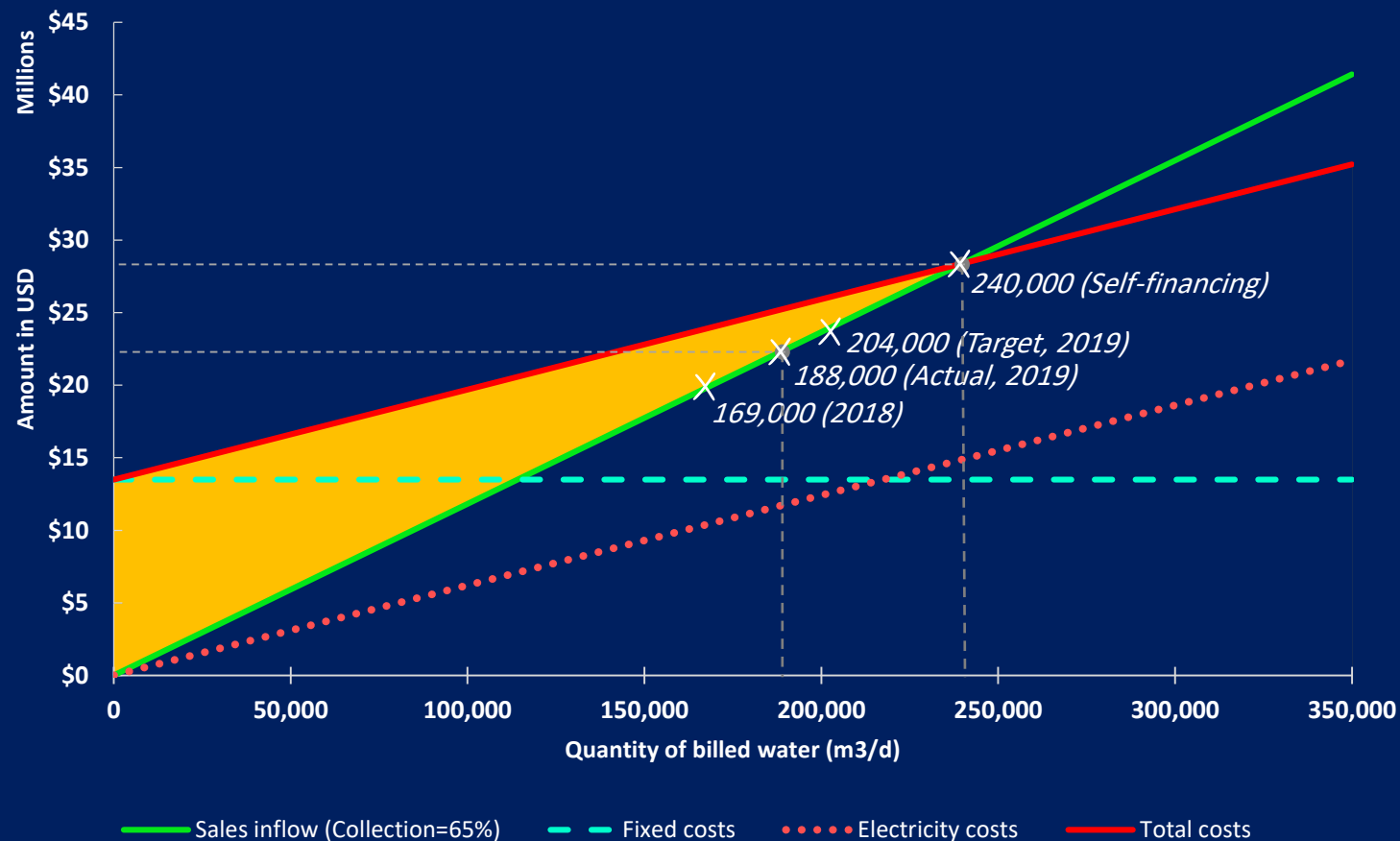




## 5.3

### Investments (4/7)

#### SLWE self-financing capacity – year 2019

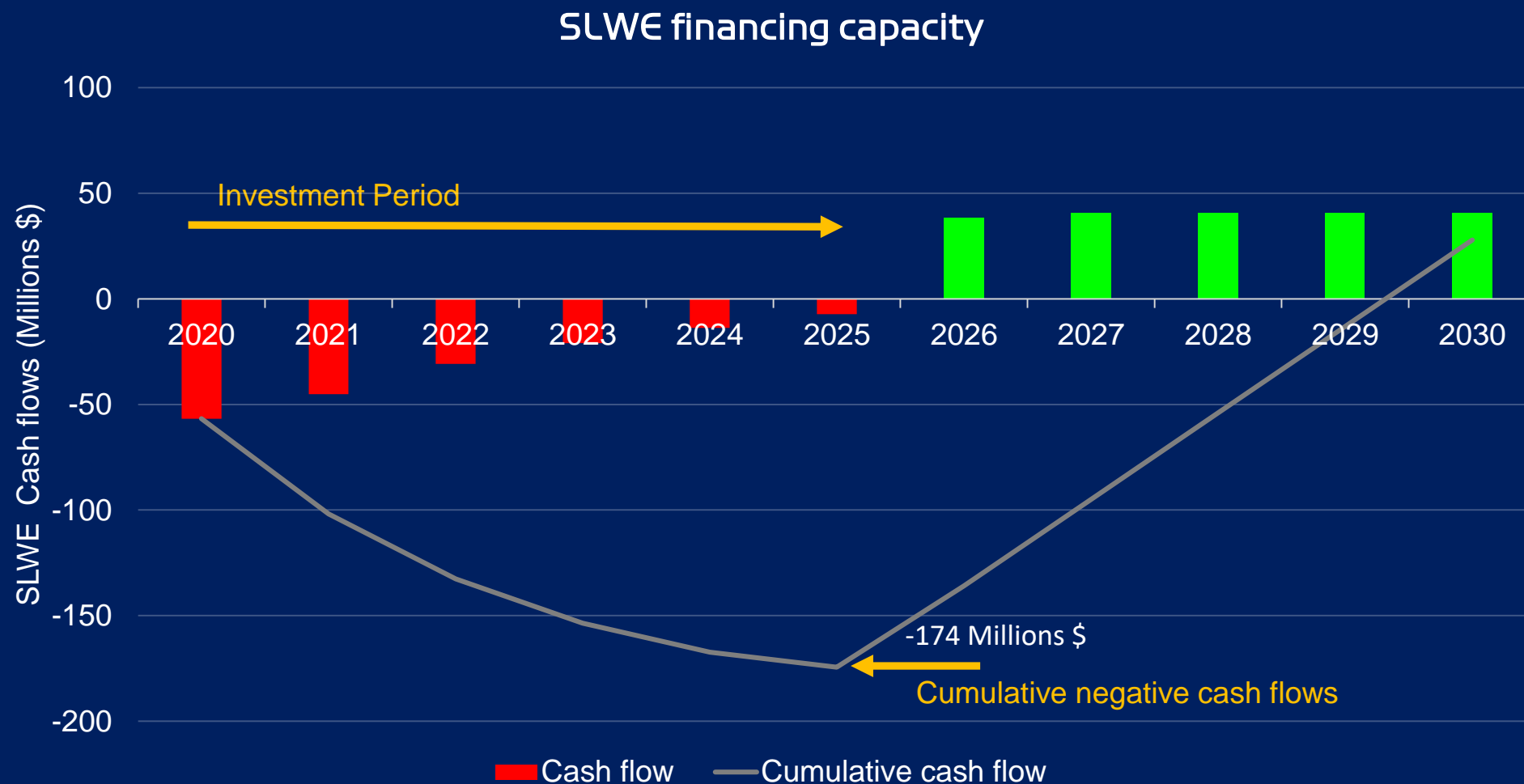




## 5.4

### Investments (5/7)

Cash position during investment period

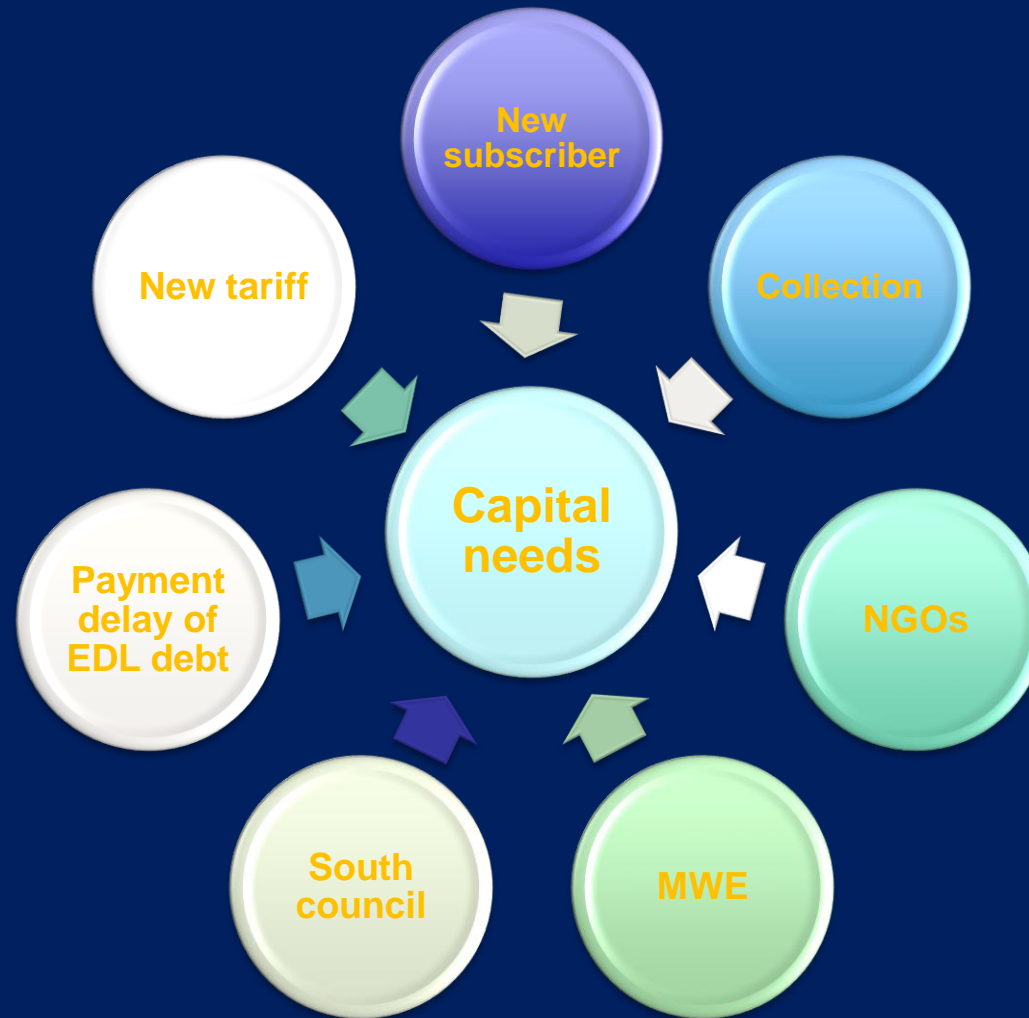




## 5.5

### Investments (6/7)

Potential sources for funding the new investments





## 5.6

## Investments (7/7)

External funds to be provided between 2020-2025

Amounts in USD

| Year  | 2020                | 2021                | 2022                | 2023                | 2024                | 2025                |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Expected Billed Water (m³)                        | 203,875             | 224,750             | 245,625             | 266,500             | 287,375             | 308,000             |
| Targeted Collection of Bills                      | 80%                 | 85%                 | 90%                 | 95%                 | 95%                 | 95%                 |
| Inflow from tariff increase                       | 2,609,600           | 3,056,600           | 3,537,000           | 4,050,800           | 4,368,100           | 4,681,600           |
| Cash flow from operations<br>(excl. energy costs) | 19,120,000          | 24,707,500          | 30,712,500          | 37,135,000          | 41,101,250          | 45,067,500          |
| Outflow Energy Costs                              | (20,391,333)        | (16,765,667)        | (10,852,667)        | (9,903,667)         | (9,100,667)         | (8,972,917)         |
| <b>Cash from Operations</b>                       | <b>1,338,267</b>    | <b>10,998,433</b>   | <b>23,396,833</b>   | <b>31,282,133</b>   | <b>36,368,683</b>   | <b>40,776,183</b>   |
| Investments                                       | (57,913,000)        | (57,913,000)        | (57,913,000)        | (57,913,000)        | (57,913,000)        | (57,913,000)        |
| Inflows from Solar Farms                          | 2,433,333           | 4,866,667           | 7,300,000           | 9,733,333           | 12,166,667          | 14,600,000          |
| <b>Cash from Investing</b>                        | <b>(55,479,667)</b> | <b>(53,046,333)</b> | <b>(50,613,000)</b> | <b>(48,179,667)</b> | <b>(45,746,333)</b> | <b>(43,313,000)</b> |
| South Council                                     | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           |
| MEW   | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           | 5,000,000           |
| CDR   | 0                   | 12,000,000          | 12,000,000          | 12,000,000          | 12,000,000          | 12,000,000          |
| UNICEF  | -                   | -                   | -                   | -                   | -                   | -                   |
| UN  | -                   | -                   | -                   | -                   | -                   | -                   |
| EU  | -                   | -                   | -                   | -                   | -                   | -                   |
| USAID   | -                   | -                   | -                   | -                   | -                   | -                   |
| NGO   | -                   | -                   | -                   | -                   | -                   | -                   |
| <b>Cash from Contributions</b>                    | <b>10,000,000</b>   | <b>22,000,000</b>   | <b>22,000,000</b>   | <b>22,000,000</b>   | <b>22,000,000</b>   | <b>22,000,000</b>   |
| <b>Cash Balance</b>                               | <b>(44,141,400)</b> | <b>(20,047,900)</b> | <b>(5,216,167)</b>  | <b>5,102,467</b>    | <b>12,622,350</b>   | <b>19,463,183</b>   |





## 6.0 Projects by Type

|    |                    |   |
|----|--------------------|---|
| 1  | Sources            | <ul style="list-style-type: none"><li>Aalman spring project, Ghalle spring project, Rehabilitation and expansion of Litani river water intake and Taybe WTP, Yohmor WTP Project, Saida &amp; Jezzine water cycle, Upgrade of Nabaa el Tasse project, Zahrani Water Supply Project - Springs and Pumping Station</li></ul> |
| 2  | Water storage      | <ul style="list-style-type: none"><li>24-hour storage capacity, Required capacity 350.000 m3, Available capacity 195.000 m3, Ongoing capacity 15.000 m3</li></ul>   |
| 3  | Water network      | <ul style="list-style-type: none"><li>Water supply systems in Jabal Amel region – Phase III, South- Lebanon, New water networks in the South, Lebanon Water Project (Jezzine)</li></ul>   |
| 4  | Water quality      | <ul style="list-style-type: none"><li>Upgrade of laboratory infrastructure project, Upgrade of laboratory functions project, Upgrade of sampling network, Sensors quality network</li></ul>   |
| 5  | Renewable energy   | <ul style="list-style-type: none"><li>Construction of solar farms in various localities for generation of clean energy; project consisting of 5 phases of 10 MW capacity each</li></ul>   |
| 6  | IT                 | <ul style="list-style-type: none"><li>Installation of new servers, upgrade of server room, purchase of licenses, development of MMS software for maintenance, ERP upgrade &amp; GIS data compilation, systems &amp; procedures integration, electronic billing</li></ul>  |
| 7  | NRW                | <ul style="list-style-type: none"><li>Installation of smart meters for real-time water data by AMR/AMI technologies and SCADA integration</li><li>Leak detection equipment</li><li>Bulk &amp; District flowmeters</li></ul>   |
| 8  | Customer interface | <ul style="list-style-type: none"><li>Call center, mobile application, customer relation portal, social media</li></ul>   |
| 9  | CSR                | <ul style="list-style-type: none"><li>Firefighting water outlet, municipalities online gateway</li></ul>  |
| 10 | Data cleaning      | <ul style="list-style-type: none"><li>CRP, data gathering and updating programs</li></ul>   |



## 7.0

## Waste Water

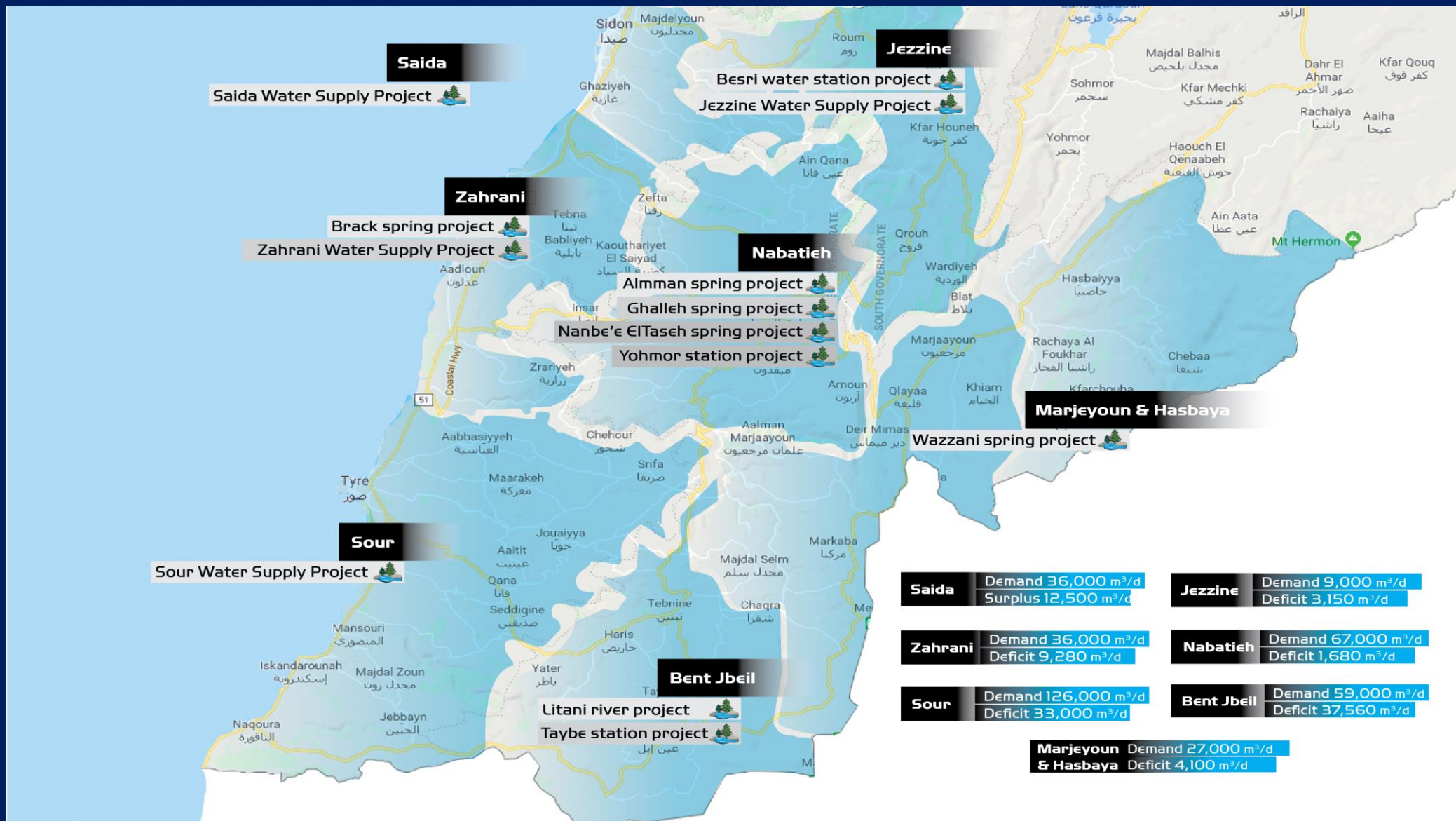






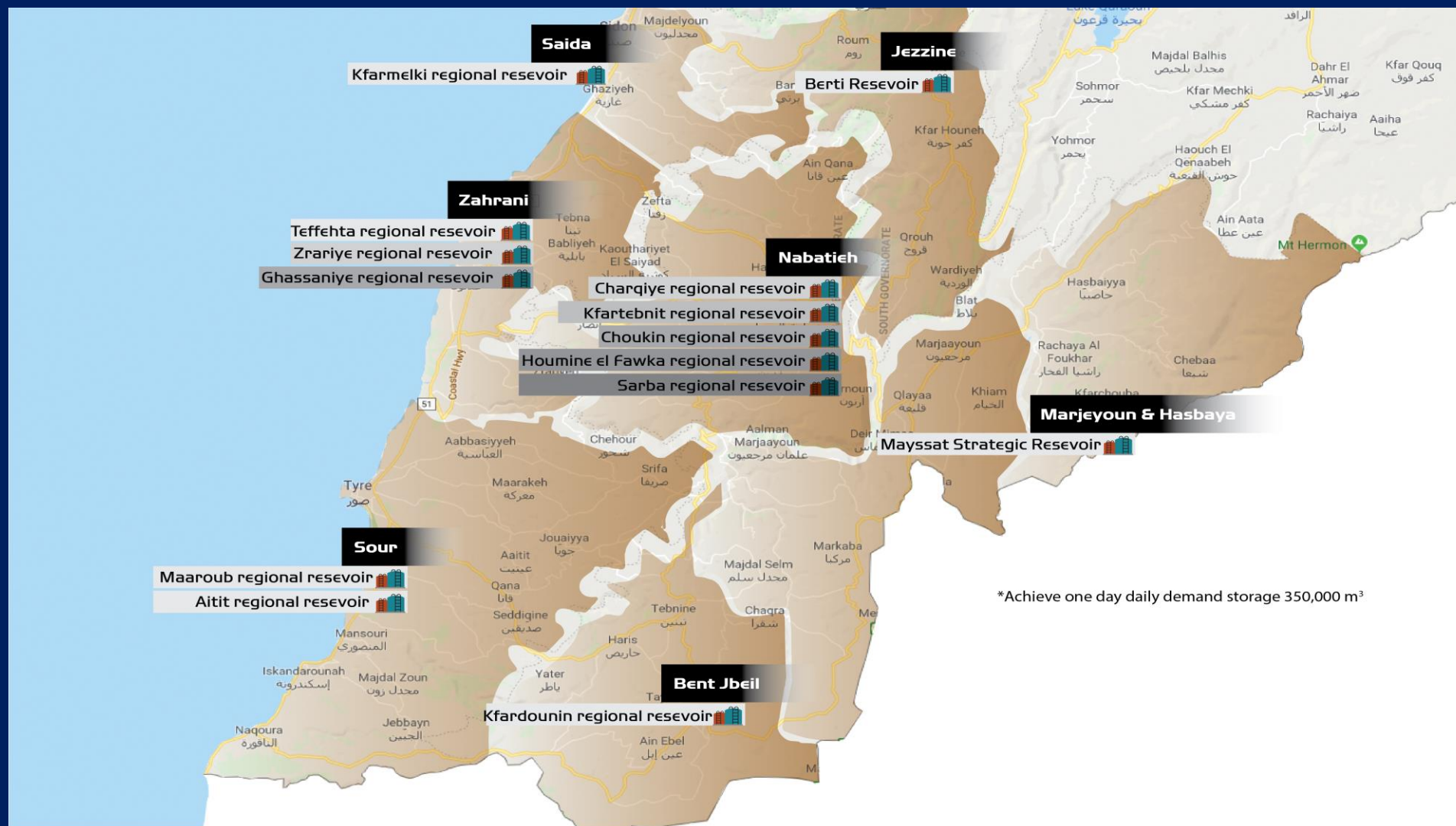
# 9.0

## Maps





# Maps





## 9.2

## Electronic Billing

باركود خاص بالمؤسسة لمقارنة الايصالات المفوترة

بصمة فضية لمنع التزوير

نسخة خاصة بالمستخدم

مؤسسة مياه لبنان الجنوبي  
"مؤسسة عامة"

SLWE

| الإصل             | رقم الإصل | رقم متسلسل | المنطقة         | الدائرة | المنطقة           | اسم المشترك       | منطقة         | فصل         | الدائرة | المنطقة | نوع الاشتراك | نوع القياس    |
|-------------------|-----------|------------|-----------------|---------|-------------------|-------------------|---------------|-------------|---------|---------|--------------|---------------|
| الجاني            |           |            |                 |         |                   | مطلوب مياه        |               | الشارع      | البلدية | المنطقة | رقم العقار   | عدد م3        |
| مركز الدفع        | ألي       | يدوي       | الحالي          | السابق  | بدل زيادة مقطوعية | بدل مقطوعية عداد  | رسم صندوق     |             |         |         | TVA          | تاريخ الإصدار |
| تاريخ التسديد     | نقد       | شك         | مجموع م3 مستهلك |         | بدل صيانة         | بدل صيانة صرف صحي | بدل مكثنة     | غرامة تأخير |         |         | رسم طابع     |               |
| توقيع وختم الجاني |           |            |                 |         | المجموع لـ        |                   | توقيع المحتسب |             |         |         |              |               |

\* مع الاحتفاظ بجميع الحقوق فيما يتعلق بالحسابات السابقة غير المسددة وحق المطالبة بها في أي وقت  
\* يرجى إبراز هذا الإيصال عند كل مراجعة  
\* يرجى التأكد من شخصية الجاني وإسطة البطاقة الخاصة المعطاة له من قبل المؤسسة

الرقم اليدوي القديم الخاص بكل مشترك

الرقم الآلي المميز الخاص بكل مشترك والذي سيتم استخدامه في كل معاملاته مع المؤسسة

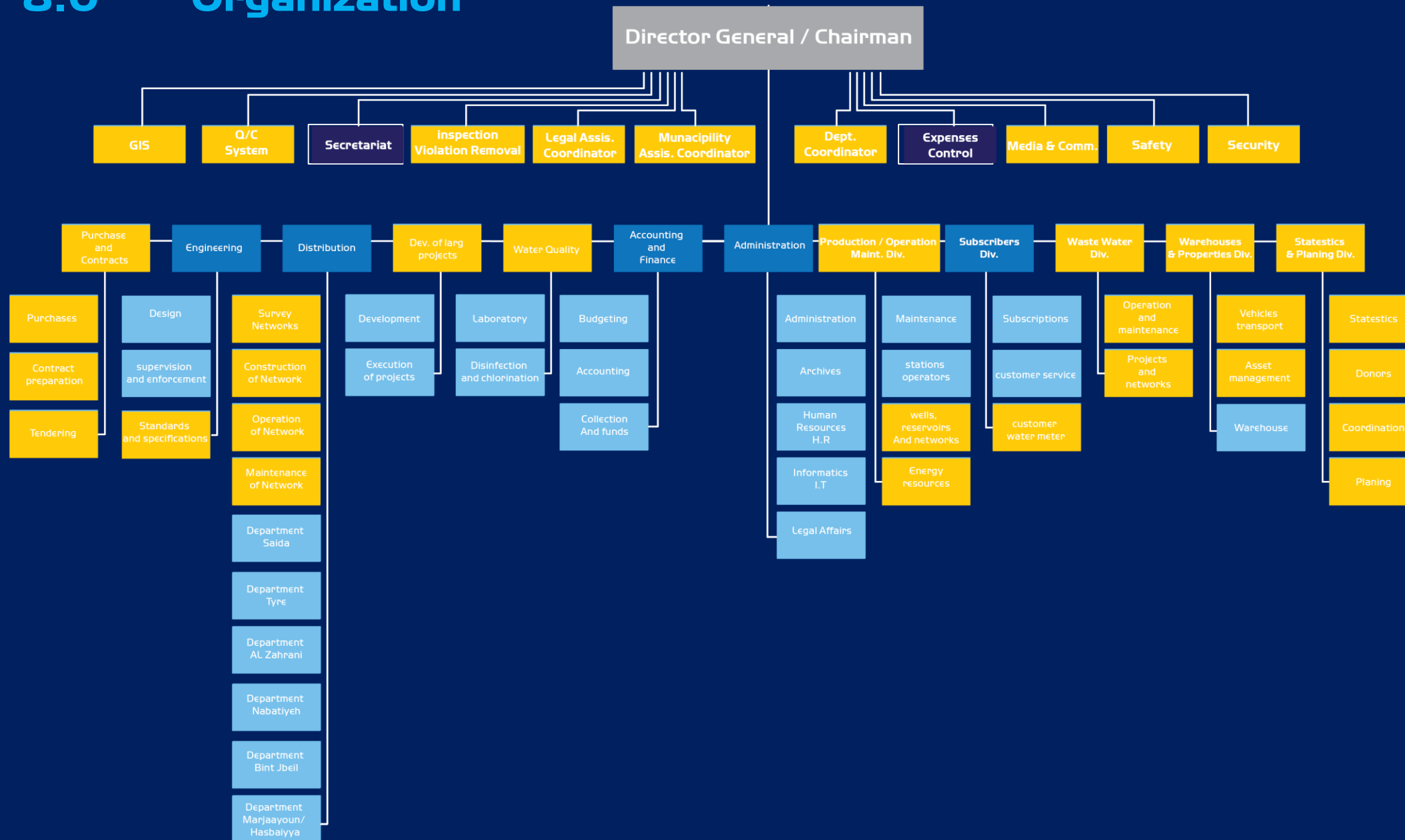


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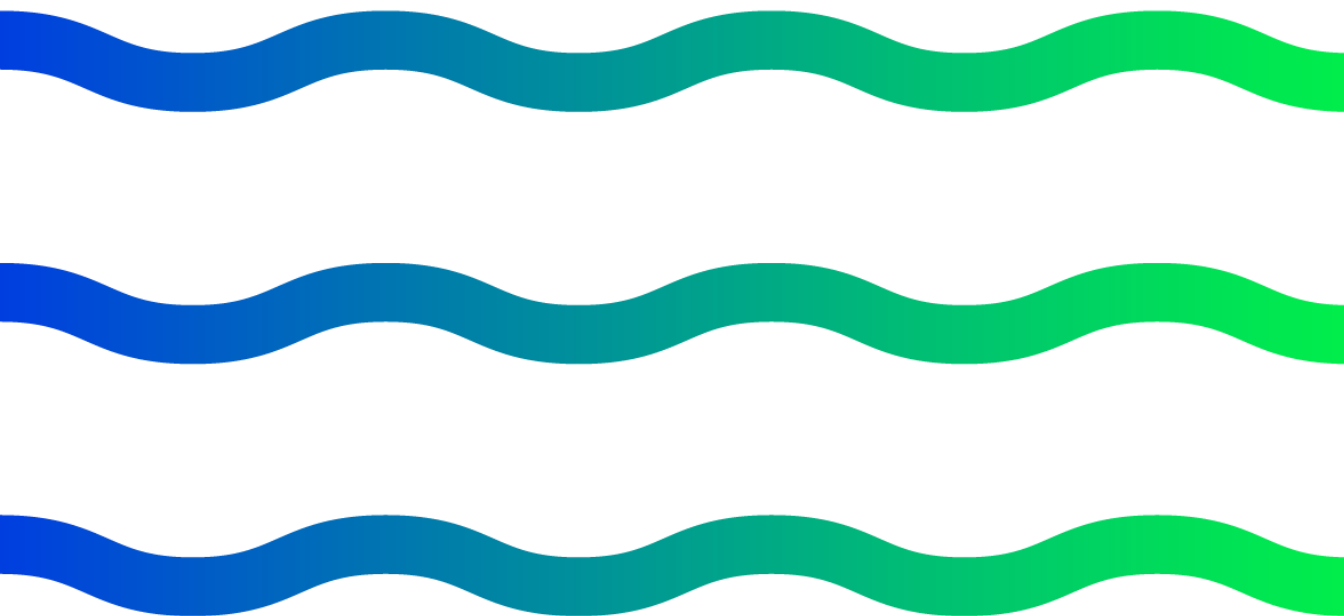


8.0

# Organization







**Thank You**