

**AUDITOR GENERAL'S DEPARTMENT
SPECIAL AUDIT REPORT
NATIONAL WATER COMMISSION - K-FACTOR PROGRAMME**

Executive Summary

To facilitate the financing of capital rehabilitation projects to reduce Non-Revenue Water (NRW), NWC charges customers a percentage of their bill amount. This charge is known as K-Factor. NWC and **OUR** agreed on capital rehabilitation projects to be completed during each tariff period. NWC would determine the cost of the projects and recommend the K-Factor rate to meet the cost. The amounts collected should be used specifically to finance repayment of loans which are geared toward capital rehabilitation projects such as non-revenue water reduction, energy efficiency and sewage network expansion projects. It is expected that the implementation of approved capital rehabilitation projects, under the K-Factor programme would translate into an improvement in NWC's efficiency by reducing the level of NRW and energy consumption. The X-Factor was introduced as a mechanism to pass on efficiency gains from investments in projects done using the K-Factor funds. The X-Factor represents a credit on customers' bills, reducing the billed amount monthly.

The audit was conducted to determine whether NWC is using the K-Factor revenue to effectively implement projects approved under the K-Factor programme in order to reduce NRW and improve energy efficiency. The audit also seeks to determine whether NWC is complying with the established regulatory framework to ensure proper oversight of the K-Factor programme.

Key Findings

K-Factor Project and Efficiency Management

- 1. NWC did not achieve the 2008-13 Tariff Determination Notice target to reduce Non-Revenue Water (NRW) to 50 per cent.** During the 2008-2013 Tariff period, **OUR** approved a total of 128 projects, 64 related to NRW reduction and 64 related to sewage network. The projects entail the rehabilitation and repairs to mains at an estimated cost of \$41 billion. It is expected that the \$41 billion would finance repayments of loans secured to cover capital costs, which should be limited to a ten year tenure. However, NWC was only able to secure loans totalling US\$248 million (JA\$21.4 billion) of which US\$156.5 million was drawn down by NWC as at June 2014. Consequently, NWC had to use \$15 billion of the K-Factor cash inflows to supplement the financing of the projects, for the period April 2008 to September 2014. This resulted in NWC only being able to complete 54 (42 per cent) of the 128 projects as at November 2014. This have contributed to NWC's inability to achieve the revised NRW target of 55 established by **OUR** in its Tariff Determination Notice (2013-18). At March 2014, NRW stood at 71 per cent, representing 16 percentage points above **OUR**'s target of 55 per cent.
- 2.** Over the period 2008-09 to 2013-14, NWC produced 390 billion imperial gallons at a total cost of \$354 billion. Over the same period, NRW was 270 billion imperial gallons (69 per cent) of the total water production at a cost of \$245 billion. Further, this critical state of affairs as exacerbated as it relates to NRW as NWC only collected 26 per cent (\$93.2 billion) of the remaining 31 per cent of billed water production.

Key Note

NRW includes leaks and unauthorised consumption. Of the 270 billion imperial gallons of NRW, leaks accounted for 132 billion (49 per cent), while unauthorised consumption accounted for 137 billion imperial gallons (51 per cent).

K-Factor Revenue and Control

- 3. NWC did not lodge \$0.7 billion collected from customers into the designated K-Factor Account.** Over the period April 2008 to September 2014, NWC collected approximately \$16 billion for K-Factor from customers. However, only \$15.3 billion (94 per cent) was deposited into the K-Factor bank account. The remaining \$0.7 billion was not deposited to the K-Factor bank account, but retained and utilised to finance NWC's operational activities. Further, we were unable to verify whether NWC was complying with the requirement to deposit the deemed K-Factor collection within the stipulated 45 days. The late depositing of the K-Factor funds could hinder the timely execution of non-revenue water reduction projects aimed towards increasing operational efficiency.
- 4. NWC transfer \$1 billion from K-Factor funds to finance administrative expenses.** NWC established the K-Factor Unit to manage the K-Factor programme. In a letter dated January 22, 2013, **OUR** agreed with NWC decision that the administrative activities of the K-Factor Unit would be paid by NWC. However, NWC instituted a supervision cost of 8.5 per cent of project cost, which amounted to \$1.08 billion, which was transferred to NWC operational bank accounts in August 2013. NWC did not present the requisite approval from **OUR** for the imposition of the supervision cost. NWC failure to lodge \$0.7 billion collected from customers into the designated K-Factor Account and the diversion of \$1 billion to finance administrative expenses may have impacted on the timely implementation of Non Revenue Water (NRW) reduction projects.

Recommendations

- 1.** NWC should ensure full compliance with the requirement to deposit within the stipulated timeframe, all revenues collected from customers under the K-Factor programme. In addition, all K-Factor related loan proceeds should be deposited to the K-Factor bank account. NWC should also ensure that K-Factor revenues remain in the K-Factor bank to be made available to finance the implementation of K-Factor projects at the earliest possible time.
- 2.** NWC should immediately seek to develop a comprehensive water loss management strategy to address the issue of NRW. The strategy should include a robust plan to repair 95 per cent of reported system leaks within the required one to three days. NWC should also put systems in place to complete all NRW reduction projects before the end of the 2013-18 tariff periods so as to realized expected efficiency gains.