



# System Losses: The Jamaican Experience

*A JPSCo perspective*

*presented by*

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*to the*

*1<sup>st</sup> OOCUR Conference*

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*Port of Spain, Trinidad*





# JPSCo in summary

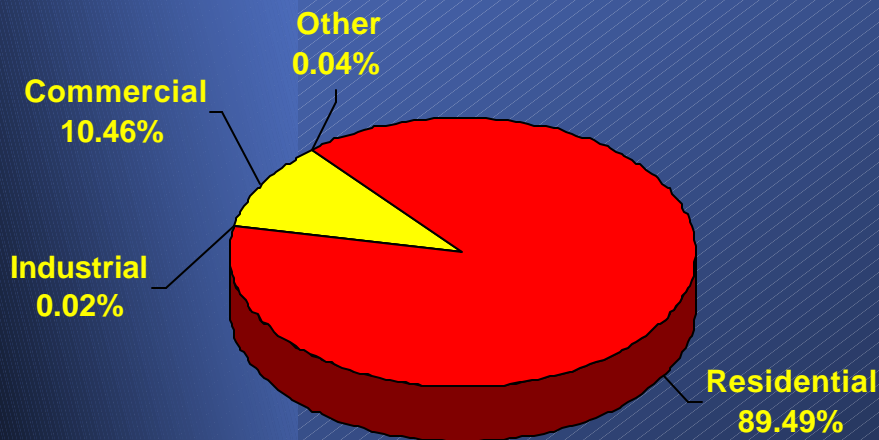
- Vertically integrated utility – generation, transmission, distribution, customer service
- Mirant Corporation acquired 80% ownership in April 2001
- Number of customers: **519,363**
- Net Generation: **3,650 GWh**
- Installed capacity: **745 MW**
  - JPSCo 587 MW
  - IPPs 158 MW



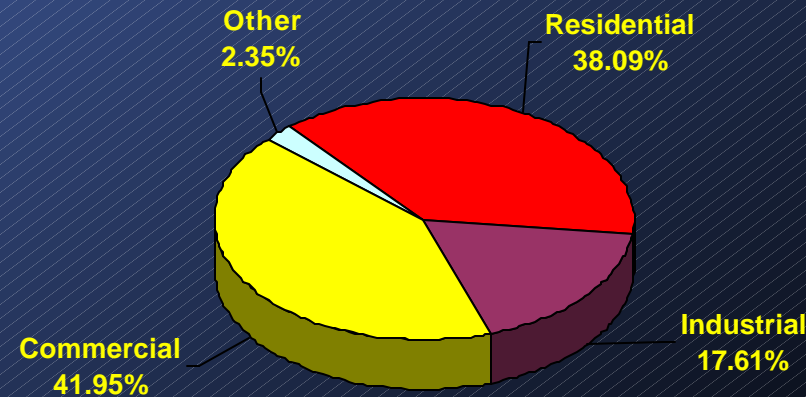
# JPSCo in summary

## Customer Demographics:

	<u>Number</u>	<u>Energy(GWh)</u>
Residential(R10)	464,761	1, 103
Industrial(R50)	106	510
Commercial(R20&40)	54,303	1,215
Other	193	68



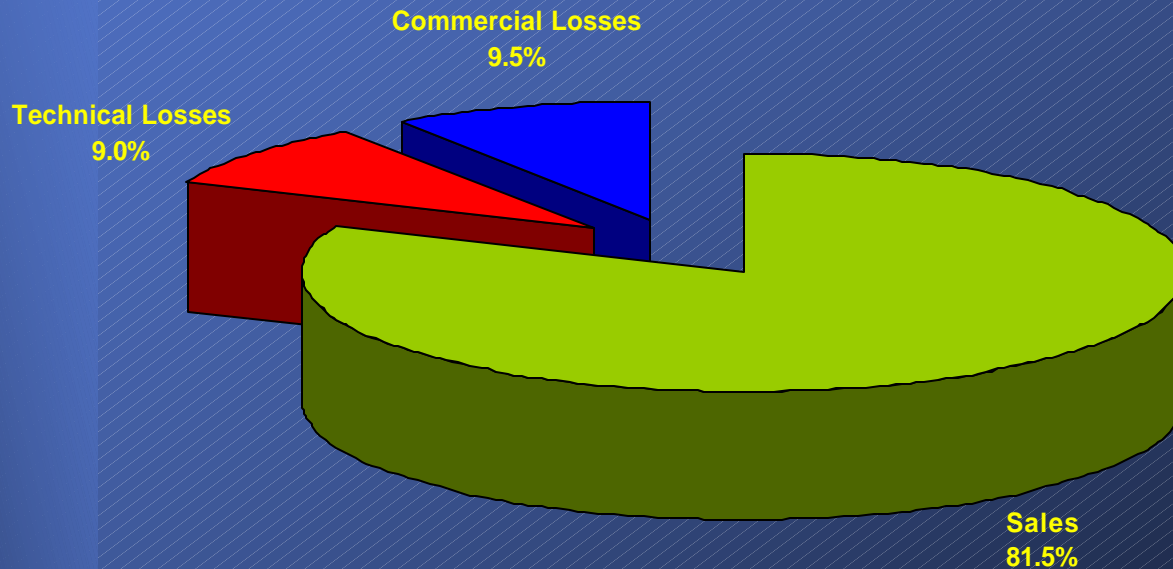
Number of Customers



Energy Consumption

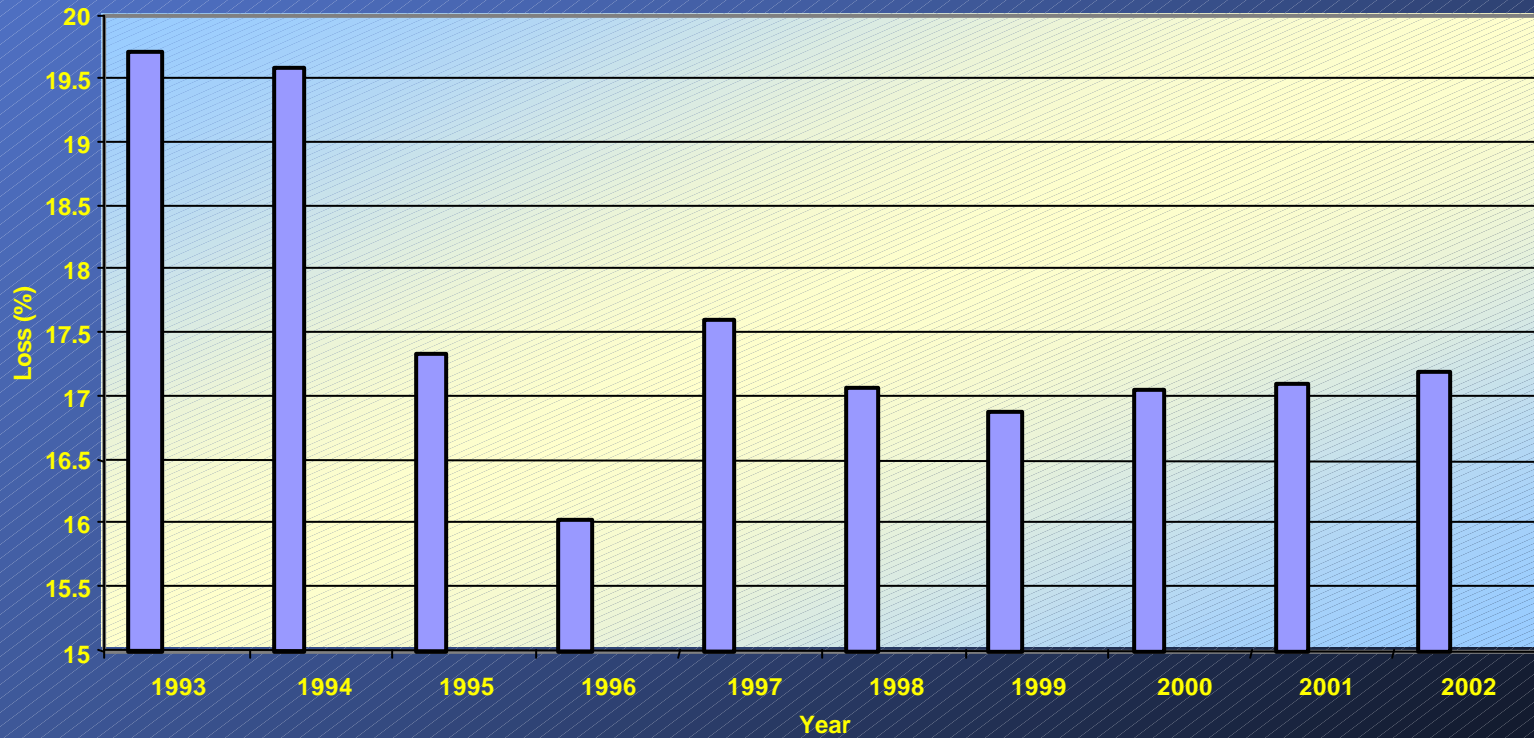


# Net Generation Utilisation



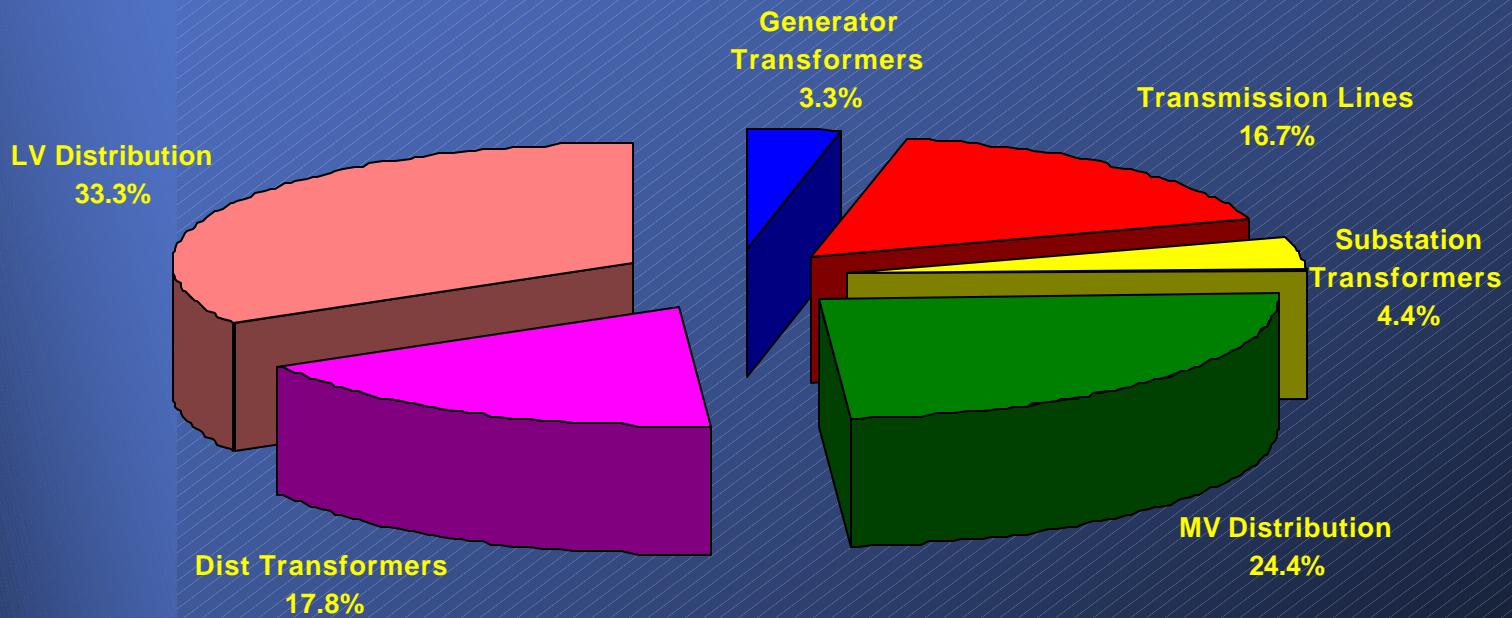
# System Losses

## The ups & downs



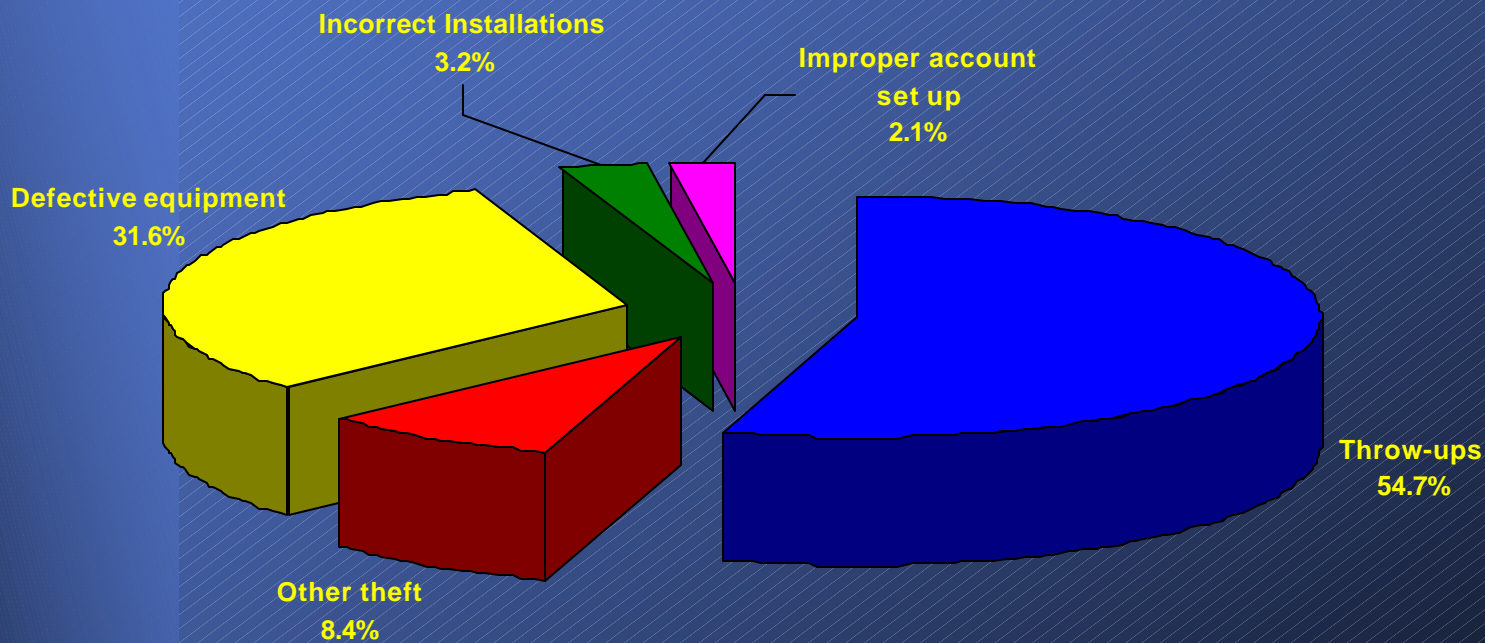


# Technical Losses





# Commercial Losses







# Losses

## The cost

Cost to customers (embedded)	US\$39.3 M
Cost to JPSCo (fuel impairment)	US\$5.7 M
Total monetary impact	US\$45 M
Cost in life & property	Priceless



# Commercial Losses

## Contributory factors

### ✓ Economic & social

- \* 10-year economic depression
- \* high unemployment
- \* weak law enforcement
- \* relatively small fine for electricity theft
- \* Garrison communities phenomenon



# Commercial Losses

## Contributory factors

### Business Deficiencies/network access

- \* Past meter shortages
- \* Dishonest field operatives
- \* Weak internal controls
- \* Unsealed meters
- \* Long stretches of un-insulated secondary



# Commercial Losses

## The past focus

- ▼ Removal of illegal connections
- ▼ Tightening of internal controls
- ▼ Regularisation of illegal consumers



# Commercial Losses

## Past initiatives (throw-up removal)

- ✓ 72-man Revenue Protection Division formed in 1999
- ✓ 30,000 throw-ups removed since 1999 (most back in service)
- ✓ Estimated reduction in electricity production – 3,000,000 kWh/month  
*(Based on 100 kWh/month/throw-up)*



# Commercial Losses

## Past initiatives (internal controls)

- ✓ 90,000 accounts audited (rates 40/50/20)
- ✓ 30,000 defects/irregularities identified
- ✓ 2,000,000 kWh incremental monthly billing



# Commercial Losses

## Past initiatives (gentle persuasion)

- ✓ Community outreach initiative – aimed primarily at “garrison communities”
  
- ✓ Introduction of special flat rate tariff
  
- ✓ Results: very modest success
  - *only a handful pay regularly*
  - *enforcement option (disconnection) weak*



# Commercial Losses

## New game plan (internal controls)

- \* Audits: Rate 40/50 accounts audited 3 months after set-up, annually thereafter.
  - Rate 20s every 5 years
- \* Meters: Better meter inventory control - resealing programme
- \* CIS: Additional control/checks functionality to be activated
- \* External consultants engaged to identify weaknesses





# Commercial Losses

## New Game Plan (Alliances)

### Forging a “Coalition of the Willing”

#### Objectives

- \* Create greater public awareness of the problem
- \* Personalise the problem for customers
  - *cost & safety issues*
- \* Lobby for greater state enforcement support
- \* Lobby for stiffer penalties/fines



# Commercial Losses

## New Game Plan (Alliances)

### Potential Partners

- \* Government – bolster laws & political help with garrison communities
- \* Security forces – enforcement
- \* Customers – intelligence & public pressure
- \* Media – publicity
- \* **REGULATOR – POLICY & SYMPATHY**



# Commercial Losses

## New Game Plan (throw-ups)

### *Persistence & Prosecution*

- \* Revenue Protection activities reorganised
- \* Raids being given greater public prominence
- \* Quick repeat raids to create discomfort
- \* Greater insistence on prosecution – making examples
- \* Nip-it-in-the-bud strategy for rural/middle-income communities
- \* Revenue Protection office set up in western Jamaica



# Gov't moves to reduce electricity theft

GOVERNMENT on Wednesday immediately concerns start...

## JPSCo cracks down on electricity thieves

BY PETRE WILLIAMS  
Observer staff reporter

WESTERN BUREAU — The Jamaica Public Service Company last week established a revenue protection division in Montego Bay that is geared at eradicating

is in region three (Hanover, St Ann, St James, Trelawny, and Westmoreland). The areas of highest incidence is Kingston and St Andrew, St Catherine and Montego Bay. Kates, a retired army officer, told the *Observer* last week. "So we set up (a RPD) in Montego Bay to deal with western Jamaica because we have a very high incidence of illegal

Retirement and it will be a weekly thing... We have removed hundreds of illegal connections to people's houses," he said. "And subsequent to that several persons who actually had their houses properly wired (that) who were eventually stealing light came in to regularise their service," he added. Kates has in the interim explained that

## JPSCo cuts 1,500 illegal connections

THE JAMAICA Public Service Company (JPSCo) last week removed 1,500 illegal connections from

without contracts as well as legitimate customers devise various means of tampering with

## JPSCo steps up on illegal connection

A SUPERMARKET operator was among 16 persons recently arrested for illegally connecting to a Jamaica Public Service Company (JPSCo) power grid in Portland.

## Electricity thieves fined

By PAUL A. REID  
Staff Reporter

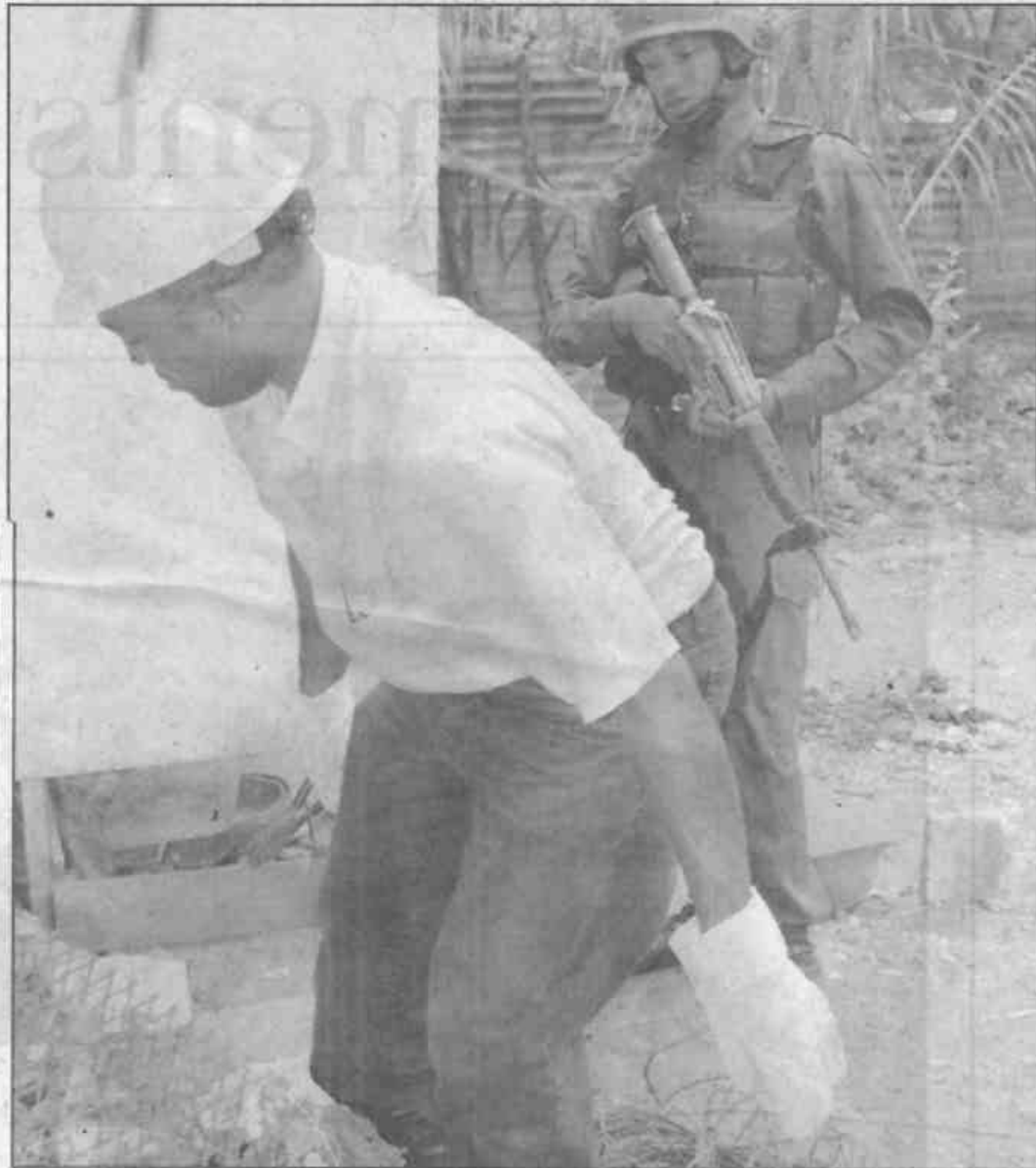
WESTERN BUREAU  
TWO GRANVILLE, ST James men, who were arrested for stealing electricity from the Jamaica Public Service Company (JPSCo)

## 19 arrested for illegal connections

NINETEEN PERSONS were arrested and charged in August as the Jamaica Public Service Company (JPSCo) removed almost 2,000 illegal electrical

without contracts along with legitimate customers who devise various means of tampering (with) and bypassing their metres," the light and power

relations programme, encouraging legitimacy through conditional contracts and public education programmes aimed at creating awareness of the danger



**RUDOLPH BROWN/Staff Photographer**

A Jamaica Public Service Company Limited (JPSCo) worker cuts illegal electricity wires, while a policeman from the Mobile Reserve looks on, during a raid in Shooter's Hill, East St. Andrew, Wednesday.



# MAJESTIC MAYHEM

## ☐ Residents riot, 12-y-o shot

**POLICEMEN AND WORKMEN** employed by the Jamaica Public Service Company Limited were forced to flee Majestic 'Backtu' Gardens yesterday, after they went there to disconnect illegal connections. **THE WEEKEND STAR** understands.

The cops and the JPSCo employees ran for cover after residents began pelting them with stones and bottles after the residents got into a dispute with some of the policemen.

Information reaching **THE WEEKEND STAR** indicates that a more than two-hour long mini-riot broke out, resulting in a 12-year-old boy being shot, two JPSCo employees being injured, and three police cars and three of the utility company's vehicles being damaged.

Following the riot, police took two men into custody, but up to late yesterday they had not been charged.

The two JPSCo employees, who police identified as Hopeton Daley and Christopher Coke, were treated at hospital and released while the injured boy, whose name was given by police as being Drandon Salesman, but who his family members say is Anthony Simond, was admitted.

Deputy Superintendent Oswald Ayre, Crime Chief for the St. Andrew South Police Division, said



**MARCH:** Residents of Majestic Gardens walk through a roadblock in their community as they protest the shooting of a 12-year-old boy in the community yesterday.

The residents, however, tell the policeman, for no reason whatso... otherwise they would have not rid

