

Emission Reduction Activities Here and Across the Pond

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Vice President

National Grid USA

Northeast Transmission

SF6 and the Environment

3rd International Conference

December 1 & 2, 2004



National Grid

Background to National Grid Transco

One of the world's largest utilities focused on delivering energy safely, reliably and efficiently

- ◆ Operations in Britain, North East US, Midwest US, Australia and Zambia
- ◆ Focused on gas and electricity transmission and distribution
- ◆ Telecoms infrastructure in US and UK

BEST IN CLASS
environmental and
social performance

STOREBRAND SRI



Business in the

Community

**CORPORATE
RESPONSIBILITY
INDEX 2003**



National Grid

Climate Change Policy & Action in Context

- ◆ **As one of the world's largest utilities, we believe that a responsible approach to doing business is fundamental to what we do. We strive to act substantially as a business, in our social role, and in how we interact with the environment.**

Corporate Governance

- ◆ **Executive**
 - Executive management is responsible for all aspects of CR
- ◆ **Board**
 - Board has overall responsibility for ensuring that management discharges its responsibilities
- ◆ **Board's Risk and Responsibility Committee**
 - Provides review on behalf of the Board
- ◆ **Internal audit**
 - Mechanism by which the R&R Committee gets its assurance
- ◆ **External verification**
 - Provides independent assurance that we are managing the right risks well

Corporate Governance

- ◆ Risk and Responsibility Committee
- ◆ Members are Non-Executive Directors
- ◆ CEO and Group CR Director attend
- ◆ Meets every three months
- ◆ Review performance and management response to issues & incidents

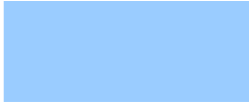





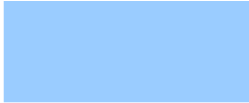


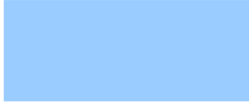
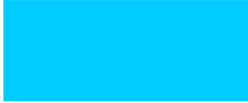




Terms of reference

- ◆ Occupational and public safety
- ◆ Occupational health
- ◆ Environment
- ◆ Equality and diversity
- ◆ Human rights
- ◆ Business ethics
- ◆ Role of the Group in society



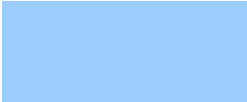


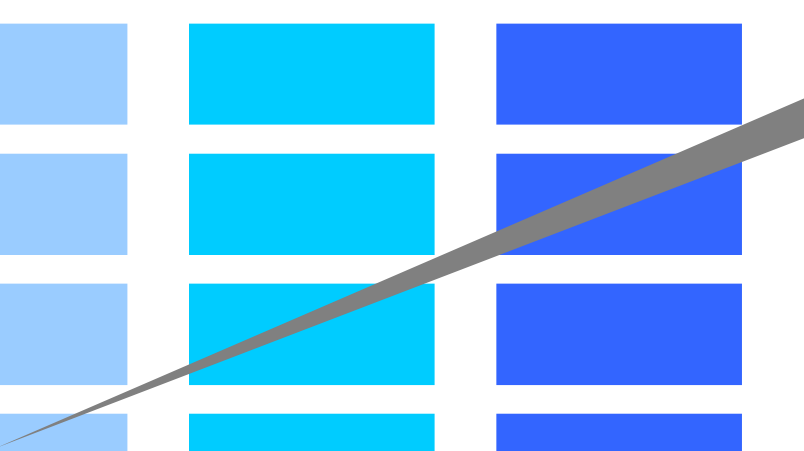
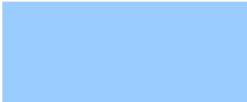


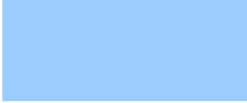
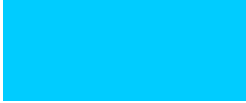

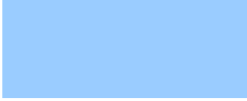





Our “*Framework for Responsible Business*”

Human Rights

| | Sustainable Growth | Profits with Responsibility | Investing in the Future |
|-------------|--|---|---|
| Financial |  |  |  |
| Economic |  |  |  |
| Environment |  |  |  |
| Employees |  |  |  |
| Society |  |  |  |

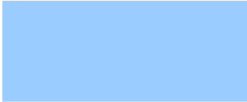
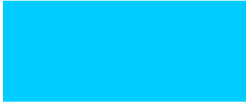

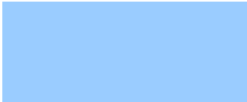


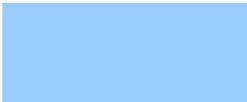
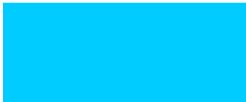

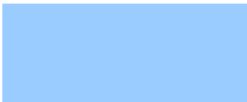
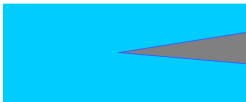

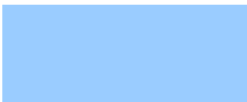
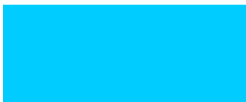

Our “*Framework for Responsible Business*”

Human Rights

| | Sustainable Growth | Profits with Responsibility | Investing in the Future | |
|-------------|---|--|---|--|
| Financial |  |  |  |  Respect Human Rights |
| Economic |  |  |  | |
| Environment |  |  |  | |
| Employees |  |  |  | |
| Society |  |  |  | |

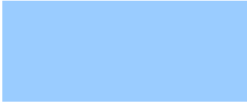
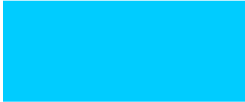

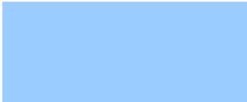





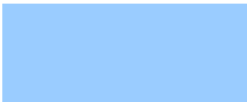
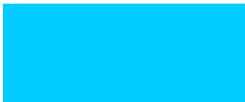

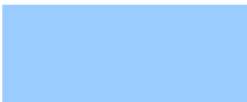
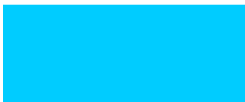

Our “*Framework for Responsible Business*”

Safety

| | Sustainable Growth | Profits with Responsibility | Investing in the Future | |
|-------------|---|--|---|---|
| Financial |  |  |  | <p>Safeguard each other and those who work with us by operating an injury-free and healthy workplace and protect the safety of the public through the integrity of our operations</p> |
| Economic |  |  |  | |
| Environment |  |  |  | |
| Employees |  |  |  | |
| Society |  |  |  | |

Our “*Framework for Responsible Business*”

Climate Change

| | Sustainable Growth | Profits with Responsibility | Investing in the Future |
|-------------|---|--|---|
| Financial |  |  |  |
| Economic |  |  |  |
| Environment |  |  |  |
| Employees |  |  |  |
| Society |  |  |  |

Help protect the environment for future generations including making our contribution to minimising climate change

Climate Change

- ◆ 2003/2004 10.6 million tons CO₂ equivalent
 - Methane leakage and venting represented 49.5%
 - Electricity Transmission Losses represented 27.0%
 - Gas Transmission Losses (excluding methane) represented 14.0%
 - SF₆ represented 5.0%
 - Energy Use represented 3.0%
 - Transport (including air travel) represented 1.5%

Climate Change

- ◆ **Examples of what we are doing**
 - **Replacing old cast iron gas pipes with plastic**
 - **Replacement of first generation SF₆ equipment**
 - **Improved maintenance of switchgear to reduce SF₆ losses**
 - **Reduce transmission losses**
- ◆ **These changes also improve the bottom line**



US Approach and Targets for SF6 Reduction

◆ In United States

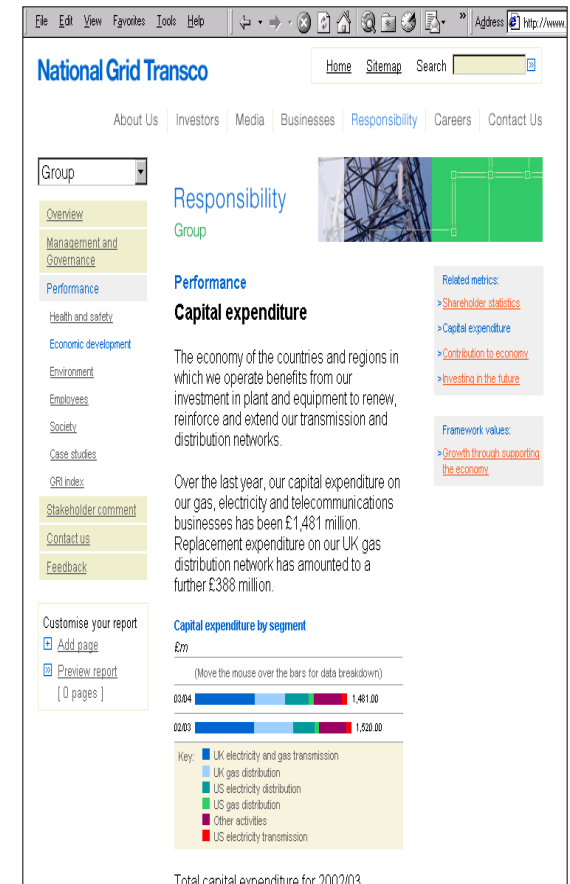
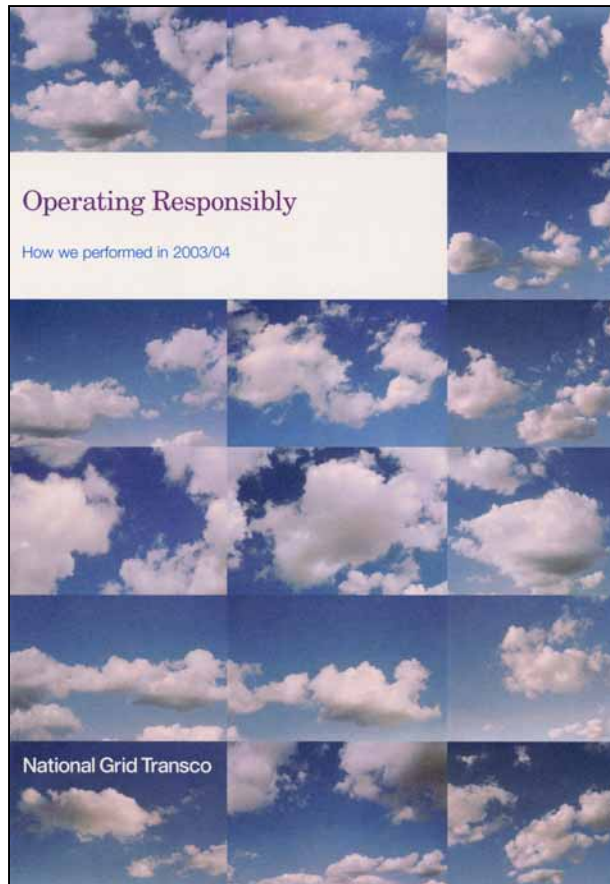
- **Niagara Mohawk signed onto voluntary MOU with United States EPA in 2000**
- **National Grid USA joined voluntary MOU in 2003 adding several operating companies to the agreement**
- **National Grid continues to participate in Department Of Energy Energy Information System Voluntary Reporting of Greenhouse Gases**
- **Niagara Mohawk achieved a reduction from 13% emissions in 1999 to 7% emissions in 2003**
- **National Grid USA has set a target to reduce from 15.5% emissions in 2000 to 8.3% emissions by 2008**
- **Mainly to be achieved by replacing first-generation SF6 equipment and improved maintenance practices**

UK Approach and Targets for SF6 Reduction

◆ In United Kingdom

- NGT approach to Environmental Reduction Targets complies with European Community (EC) Draft Regulation of Fluorinated Gases
 - Calls for use of Best Available Technology in controlling SF6 leaks
 - Overall objective is to make significant contribution towards the EC's reduction target for greenhouse gas emissions under Kyoto Protocol
 - CIGRE identifies achievable 1% but challenges users to meet 2.6% by 2010
 - NGT is currently 3.5% and targets 2% by 2010
 - Repair of small endemic leaks on current equipment -- new equipment 0.5% leak rate or better for life

More Details are Contained in.....



Recognizing Good Performance - Our Chairman's SHE Awards

- ◆ Employees nominated by colleagues
- ◆ Winners get a cheque for
- ◆ \$18k to donate to charity of their choice
- ◆ Big impact on charitable organisation
- ◆ Big personal impact on employee

