



European Bank
for Reconstruction and Development

Sub-sectoral Environmental and Social Guidelines: Cable Television

PROCESS DESCRIPTION

This guideline covers the establishment and operation of the terrestrial elements of satellite and cable television networks.

It does not cover the manufacture of set top boxes. For these impacts please refer to the *Electrical Goods* guideline. It also does not cover the construction or launch of satellites or the construction of surface based satellite transmission stations.

Cable television refers to the method of providing television services to customers via radio frequency signals transmitted to televisions through fixed optical fibres or co-axial electrical cables as opposed to the over-the-air method used in traditional television broadcasting (via radio waves) in which a television antenna is required. Many cable television networks also provide associated services such as telephone lines and internet access.

Fibre-optic lines provide substantially greater bandwidth (information transmission capability) than co-axial cables, but have drawbacks in terms of their fragility and the need to convert from optical transmission to electrical transmission prior to delivery to receiving equipment.

Cables can be placed either above the ground on poles or underground in trenches. Whilst underground placement has significant advantages in relation to the protection of the cable and reduced requirements for maintenance, it may require substantially greater initial investment than overhead placement, particularly in areas with shallow bedrock.

The operation of a cable or satellite television network typically has a low environmental impact. The installation of such systems, however, often entails secondary activities which have much greater effects on the environment. Such activities include:

- The excavation of cable trenches;
- Placement of satellite transmission and receiver dishes; and
- The placement of above ground cables.

KEY ENVIRONMENTAL, HEALTH AND SAFETY RISK/LIABILITY FACTORS

Waste management

Waste associated with cable television operators would include primary, secondary and tertiary packaging associated with the manufacture and distribution of cables, set top boxes, and remote control devices. There is also a stream of waste associated with end-of-life of cables and set top boxes.

Co-axial cables could contain metal (such as copper) and plastic or rubber wire casing. For example a common insulating material is PVC, which does not biodegrade. Therefore three primary options exist; burial, incineration and recycling. Incineration releases carbon dioxide and can release toxic substances (such as dioxins). PVC might also contain lead and cadmium as stabilisers which will be released into the air or into the ash (which is landfilled).

Set top boxes should be responsibly disposed of as they may contain hazardous substances (such as brominated flame retardants and heavy



metals). These can cause soil and water contamination if disposed of in landfills, and air pollution if incinerated improperly. There is increasingly legislation at the national and international level that regulates the disposal of waste. Examples of such legislation that are relevant to the cable television sub-sector are the EU Waste Framework, Hazardous Waste and Landfill Directives.

Visual impact

Adverse visual impact may result from the placement of over-ground cables or of satellite receiver dishes in sensitive locations. The degree of impact is largely a subjective issue; however, inconsiderate placement of these items may result in the generation of considerable bad feeling within the community. In particular, there is a need to check if the area is listed or protected from an architectural, historical or natural perspective, which may impose planning restrictions on the erection/installation of over-ground cables or satellite receiver dishes.

Damage to other utilities

Intrusive work associated with the placement of cable networks has the potential to result in damage to existing underground services such as electricity cables, sewers, gas mains, oil pipelines, water mains, telephone lines and storage tanks. Damage may result either from trenching activities required for underground cables or the placement of poles to support over-ground cables.

Environmental impacts which may occur as a result of damage to other utilities include:

- The release of hazardous or contaminating substances such as oil or sewage into the soil and groundwater;
- Destabilisation of foundations, root systems and embankments due to the action of high pressure water from water mains;
- The generation of explosive atmospheres either within/around the excavation or in other nearby voids (including basements, sewers and subsurface utilities chambers);
- Additional excavation work to repair the damaged line.

It should also be recognised that damage to utility lines may have substantial health and safety implications for workers.

Occupational Health and Safety

Health and safety issues in the cable television sector could include:

- Risk of electrocution during instalment or maintenance of cables if contact is made with underground or overhead electric power distribution or transmission lines;
- Physical harm associated with vehicle use, cable laying, warehouse operations and manual loading of equipment;
- Exposure to low level electromagnetic radiation.



OTHER POTENTIAL ENVIRONMENTAL ISSUES

Energy use and climate change impacts

Cable television operations consume energy and cause the emission of greenhouse gases such as carbon dioxide.

Energy consumption may be associated with:

- Operation and maintenance of buildings and site (electricity use for lighting, IT infrastructure in data centres);
- Business travel (air, rail, road);
- Vehicle fleet (for installation of set top boxes, maintenance etc.);
- Gas and diesel (for back-up generators);
- Set top box use (downstream impact);
- Inbound logistics (e.g. for set top boxes, cables etc.).

Companies can reduce the climate change impacts of their operations by implementing energy efficiency in their operations (such as optimised distribution networks, energy efficient lighting and heating systems, greener vehicle fleet, reduced business travel), and products (e.g. set top boxes with auto stand-by). Companies can also reduce the carbon intensity of energy used by exploring the use of renewable forms of energy.

Damage to vegetation

Trenching associated with the placement of underground cables may affect local vegetation through the following means:

- Direct damage to root systems resulting in reduced stability and a decrease in capacity to accumulate nutrients and water;
- Alteration of subsurface drainage patterns resulting in either a reduction in the water supply available to the plants or flooding of root systems.

Responsible timber sourcing

Over-ground cable routes frequently use timber for cable supports. Care should be taken to ensure that timber supplies are sourced from sustainably managed forests and are not associated with illegal logging.

KEY SOCIAL, LABOUR AND COMMUNITY RISK/LIABILITY FACTORS

Community health concerns over electromagnetic radiation

Concern with regard to potential impacts on health as a result of exposure to low intensity electromagnetic fields is growing. At present, the available evidence to support this concern is fragmentary and it is considered unlikely that such exposure is a significant health issue. Public perception may, however, result in resistance to the placement of cables in some areas. Use of underground cables and replacement of traditional co-axial cables with fibre-optic lines is likely to overcome concerns.



European Bank
for Reconstruction and Development

Sub-sectoral Environmental and Social Guidelines: Cable Television

Responsible programming

The content of programming could also be contentious. This is especially true when certain content is not deemed appropriate for children. Functionality is often provided that allows parents control over the programmes that their children have access to. Responsible programming might also include advertisements shown during prime time viewing slots for children (too many advertisements encouraging the consumption of unhealthy food products for example).

Community engagement

Educating consumers and changing behaviour – Cable television operators have access to thousands of viewers. Through the choice of programming content operating companies have the potential to educate viewers on social and environmental issues (such as waste and recycling) and to encourage behavioural change.

In the case of underwater cable work, potential impacts on fishery activities during the cable work should be discussed with concerned and affected stakeholders involved in the fishery sector. This can help ease obtaining planning permission and can build the company's 'licence to operate' within the community.

Ethics and bribery

Strong governance structures and transparency in reporting are also important, particularly since charges of corruption and bribery can negatively impact a company's reputation and its ability to enter into business relations with partners. For example, companies may use unethical means (such as bribery) to gain planning permission or

to be given preferential treatment by the government.

OTHER POTENTIAL SOCIAL, LABOUR AND COMMUNITY ISSUES

Waste disposal in developing countries

Export of waste electronics equipment to developing countries has impacts on communities in those countries. There is a waste stream, legal and illegal, that extends from the developed countries to developing countries like China, India, Nigeria and Ghana. These countries often lack the facilities to process these waste streams which leads to dumping without processing. There are often poor working conditions in scrap yards and recycling centres. According to a Greenpeace report, the workers, often children, are exposed to toxic chemicals when waste products are broken down to extract valuable constituent materials (for example copper and other metals).

Companies involved in generating electronic waste are increasingly being held to account for its disposal and therefore cable television companies should understand the waste streams and take responsibility for driving responsible disposal with consumers and waste contractors. This would enable companies to monitor and account for waste streams of set top boxes and IT infrastructure (such as data servers).

Labour standards

Labour standards are rules that govern working conditions and industrial relations. They may be formal, such as national level regulation and international agreements, or informal, expressed through norms and values. In general, developed countries have more robust labour standards



than developing countries where the associated risks are higher. The commonly accepted rights and principles enshrined in the International Labour Organization conventions are the right to collective bargaining, elimination of forced or compulsory labour, abolition of child labour and elimination of all forms of discrimination. In addition fair wages and working hours and acceptable working conditions should be expected.

Labour standards should apply to the company's own employees as well as to all contractors and sub-contractors engaged. In addition, labour standards should be expected to be enforced by key suppliers.

FINANCIAL IMPLICATIONS

Regulatory compliance

Prior to the establishment of a cable network, it is likely that a substantial and costly process of planning, regulatory consultation and permitting will be required.

There might also be costs associated with complying with changing regulatory requirements during operation of the business. These costs might be associated with; managing of waste streams and initiating recycling programmes; emissions reduction technologies, and; health and safety improvement measures. Depending on national legislation non-compliance could have financial implications for the business in terms of fines or planning permission restrictions.

For instance, understanding how EU Directives such as WEEE (Waste Electrical and Electronic Equipment), RoHS (Restriction of Hazardous Substances) and the Landfill Directive would

impact the company's operations and supply chain would incur costs as would any operational or management changes that might be required.

Litigation and compensation

The company could incur costs if legal action is taken against it. Action could be initiated by; employees over health and safety incidents, or accusations of discrimination; the government over non-compliance; or, local communities and government agencies over environmental contamination. For instance companies might be liable for damage caused to property or utilities while laying cables. Legal action might be taken over content that is perceived to be inappropriate.

Reputational risk

Damage to reputation (due to either environmental or social impacts or failures) could damage the value of the company's brand and require long-running and costly efforts to attempt to restore trust and reputation, and reassure stakeholders such as investors, shareholders, customers and the public. This is in addition to associated litigation costs and compensation payments that might be incurred.

Cable television operators could suffer reputational damage if; the quality or suitability of their programming is called into question by their customers and the community; they have a poor labour standards record; or, they are associated with poor waste disposal practices. There could also be a change of public opinion regarding the effects of cable television on a child's development which could impact viewership.



IMPROVEMENTS

Companies can implement improvements to better tactically manage the environmental and health & safety risks of their business. Examples of such improvements are given below.

Environmental

- Consider low-energy options while upgrading equipment (such as IT infrastructure in data centres);
- Develop or switch to energy efficient set top boxes;
- Consider using energy sources that are low carbon intensive (such as renewables, combined heat and power);
- Consider implementing an energy efficiency plan to minimise carbon emissions from logistics (distribution efficiencies, low impact fuels for vehicle fleet);
- Plan for responsible disposal of equipment that contain hazardous substances (such as cables, set top boxes) by working with certified recycling or waste disposal companies;
- Minimise environmental impacts of cable laying by coordination of work with other utilities suppliers to avoid repeated excavation and by using existing utility routes;
- Reducing the visual impacts by using underground cables were feasible;
- Reduce packaging waste (primary, secondary and tertiary) through innovative packaging design, and developing reusable or recyclable packaging solutions.

Health and Safety

- Train employees on proper health and safety procedures;
- Designate first-aid wardens and provide additional training;
- Ensure adequate fire control and safety equipment is provided (fire extinguishers, first-aid kits);
- Reduce vehicle accidents through regular maintenance of fleet and training for drivers on safe driving methods;

Social, Labour and Community

- Ensure that fair wages, fair working hours and minimum age of workers are upheld;
- Develop a policy to ensure labour standards and human rights are respected upstream;
- Ensure that programming content is appropriate for viewers;
- Exercise choice over programming content to educate viewers on social and environmental issues;

In addition, best practice might include:

- Support for local and SME suppliers through selective procurement policies;
- Local skills development and capacity building.



GUIDE TO INITIAL DUE DILIGENCE SITE VISITS

The issues and risks associated with a site will vary depending on size of operation, site location, country of operation and quality of management. During an initial site visit to a site it will be important to assess the following:

Environmental, and Health and Safety

- Check that the company has an official and documented HR policy in place;
 - Are there processes in place to ensure that key suppliers comply with environmental and labour standard requirements;
 - Does the company need to comply with limits or other requirements on emissions to air or water, or on management of waste?
 - Does the company have a policy to help track disposal of waste products and their impacts?
 - Does the company have a strategy to manage energy use and carbon emissions?
 - Check whether general health and safety precautions are being taken. This would consider:
 - Whether staff have appropriate training and have appropriate PPE;
 - Whether appropriate signage is present around the site warning of health and safety dangers;
 - Whether fire extinguishers and first-aid kits are available.
- Have there been any recent (within the last three years) incidents on site or associated with operations (fleet) such as serious injuries, fires etc. Is there insurance in place to cover such incidents?

Labour issues

- Check that labour standards, contracting and remuneration are in line with national law and are consistent with the average for the sector;
- Check that hours worked, including overtime, are recorded and that staff receive written details of hours worked and payment received;
- Has the Company received inspections from the local labour inspectorate in the previous three years? Have these resulted in any penalties, fines, major recommendations or corrective action plans?
- Does the organisation have a grievance mechanism which allows employees to raise workplace concerns?
- Are employees free to form, or join, a workers' organisation of their choosing?



Community engagement

- Is there a policy on responsible programming?
- Is there a policy to consult with affected stakeholders to understand potential impacts of underwater cable work on fishery activities?
- Is there a policy and process for regular consultation with local community representatives?
- Is there a policy to prioritise community concerns and integrate into management decisions?

ACTION PLAN

An action plan would enable the company to develop policies and processes that would strategically manage risks along its value chain.

Environmental

- Develop an overall environmental strategy, supported by functional level policies and targets (covering energy use and climate change, waste and packaging, cable laying, life cycle impacts of products sold to customers);
- Communicate the company's environmental strategy and progress against commitments to stakeholders (as part of a separate sustainability report or a section of the annual report);
- Implement an environmental management system certified to a recognised standard such as ISO 14001;

- Implement a carbon management strategy to monitor and reduce energy use and carbon emissions;
- Implement a programme to monitor and reduce impacts associated with waste streams and waste-to-landfill;
- Consider take-back and recycling of set top boxes.

Health and Safety

- Develop a formal Health and Safety policy;
- Maintain a schedule to track training given to workers and managers on safety policy and procedures;
- Develop Key Performance Indicators (KPIs) for Health and Safety measures with monitoring, reporting and target setting;
- Encourage a culture of 'safety first' through communication from the top;
- Incentivise a culture of safety by linking H&S performance to reward structures;
- Consider implementing a Health and Safety management system, certified to a recognised standard, such as the Occupational Health and Safety Assessment Series OHSAS 18001 or the International Labour Office ILO-OSH 2001 system.



European Bank
for Reconstruction and Development

Sub-sectoral Environmental and Social Guidelines: Cable Television

Social, Labour and Community

- Design and communicate an appropriate code of business conduct that considers concerns of key stakeholders (shareholders, employees, government bodies, NGOs);
- Implement best-practice labour standards (in line with ILO principles); consider signing up to international frameworks such as the UN Global Compact;
- Implement a process to assess labour and human rights conditions for contractors, sub-contractors, and workers associated with supply chains of key suppliers;
- Develop a policy on responsible programming.



European Bank
for Reconstruction and Development

Sub-sectoral Environmental and Social Guidelines: Cable Television

REFERENCES AND ADDITIONAL SOURCES

International Labour Organization declaration - <http://www.ilo.org/declaration/thedeclaration/lang-en/index.htm>

UN Global Compact - <http://www.unglobalcompact.org/>

The World Business Council for Sustainable Development (WBCSD) - <http://www.wbcsd.org/>

The World Health Organization – Electromagnetic fields and public health fact sheet - <http://www.who.int/mediacentre/factsheets/fs304/en/index.html>

EU WEEE Directive - http://ec.europa.eu/environment/waste/weee/index_en.htm

EU Landfill Directive - http://ec.europa.eu/environment/waste/landfill_index.htm