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## Network services billing — Requirements

*Facturation de services en réseau — Exigences*

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

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<b>Contents</b>		Page
<b>Foreword</b> .....		iv
<b>Introduction</b> .....		v
<b>1 Scope</b> .....		1
<b>2 Terms and definitions</b> .....		1
<b>3 Billing process</b> .....		5
<b>3.1 Pre-billing process</b> .....		5
<b>3.2 Billing principles</b> .....		7
<b>3.3 Billing document</b> .....		10
<b>3.4 Post-billing processes</b> .....		15
<b>3.5 Customers in vulnerable circumstances</b> .....		17
<b>3.6 End of contract and switching supplier</b> .....		18
<b>3.7 Compliance and continuous improvement</b> .....		18
<b>Annex A (informative) Guidance for bill presentation</b> .....		20
<b>Bibliography</b> .....		21

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14452 was prepared by Project Committee ISO/PC 239, *Network services billing*.

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## Introduction

The purpose of this International Standard is to provide a market-based and market-sensitive way of dealing with the concerns of customers about the billing practices of utility network service providers. Billing is a major source of complaints to companies and industry ombudsmen. Problems experienced by customers include the following:

- bill shock (i.e. the negative reaction experienced by a customer upon receiving a bill that is higher than expected);
- bills are complicated and difficult to understand;
- pricing is not always clear;
- bills are inaccurate;
- payment methods present difficulties for customers;
- bills are overloaded with information, which adds to the confusion;
- information about offers and guidance on switching supplier is unclear.

These problems arise because of:

- poor pre-billing processes, including customer service, tariff and data management, meter reading and provision of information to customers on billing-related matters;
- unsatisfactory billing procedures and practices, leading to delayed or inaccurate bills;
- poorly presented bills and statements, which are unclear for customers;
- ineffective post-billing processes to deal with:
  - disputes and enquiries; [ISO 14452:2012](https://standards.iteh.ai/catalog/standards/sist/fcb6af7c-75b7-438a-9202-f2d7a6284c9/iso-14452-2012)
  - payment and debt collection; <https://standards.iteh.ai/catalog/standards/sist/fcb6af7c-75b7-438a-9202-f2d7a6284c9/iso-14452-2012>
  - consumers in vulnerable circumstances;
  - final bills for customers changing supplier;
- inaccurate customer expectations, based on confusing advertising or promotional material and complicated tariffs.

Clearer bills will assist customers to verify the accuracy of billed charges and will increase customers' confidence in their bills and their supplier's performance. Where alternative suppliers are available to the customer, this will also help customers to choose the supplier that best meets their needs. Suppliers are likely to benefit from fewer complaints, leading to lower operating costs, easier recovery of debts and higher levels of customer satisfaction, which will help them retain market share. Establishing a common International Standard will also assist companies that own utilities in more than one territory to reduce their costs, by adopting common billing processes and systems in different countries.

This International Standard provides a tool for suppliers of utility services to ensure that their processes enable customers to be provided with clearly comprehensible, accurate, timely and complete bills, and to have access to sufficient billing-related information to enable them to verify the accuracy of billed charges. It is intended that this International Standard:

- a) defines the minimum requirements for the billing and payment collection processes;
- b) prevents or reduces complaints, by addressing issues that have been the source of frequent complaints;
- c) ensures that suppliers deal with customers on billing matters in an appropriate and consistent manner;
- d) provides a fairer basis for an ongoing relationship between utility companies and customers;
- e) provides benchmarks for the level of customer expectations;

## ISO 14452:2012(E)

- f) allows for the implementation of smart metering technology and the provision of improved information to customers;
- g) offers scope for innovation in billing, which will enable suppliers to differentiate their services to customers in a competitive market.

This International Standard is aimed at utility bills which include an element of metered or measured consumption. Many of the key principles in this International Standard will, however, apply to all forms of billing, and suppliers are therefore encouraged to adopt the requirements in this International Standard even if usage is not metered or otherwise measured.

While the provisions of this International Standard are considered to be generally applicable globally, it is recognized that many regional or national factors might require adaptations or exceptions in order to meet prevailing cultural, social, economic, regulatory and even climatic conditions.

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# Network services billing — Requirements

## 1 Scope

This International Standard specifies the minimum requirements for billing of all consumption-based utility network services to domestic customers. It covers the processes required to produce the bill and to deal with issues that arise after the bill has been sent, as well as the content of the billing document or statement. This International Standard is applicable to utility network services that are unmetered, metered at the point of delivery or metered remotely (e.g. on the supplier's own premises), and it covers any unmetered or unmeasured charges appearing on the same bill as metered or measured charges, as well as flat rate charges.

NOTE 1 Utility network services include electricity supply, water, sanitation, gas supply, district heating and communications.

NOTE 2 The requirements given in this International Standard are also applicable to other consumers who are legally entitled to use the service provided by the supplier, except where in order to comply with privacy or data protection requirements, it is necessary for the supplier to obtain the authority of the registered customer before dealing with another consumer on billing matters.

This International Standard does not cover pricing, except for a requirement to provide information to customers. It is only applicable to billing for consumption-based utility network services and it applies to all bills or statements for utility network services where there is an ongoing account relationship between the customer and the supplier, regardless of the payment method used.

NOTE 3 This includes bills for metered consumption, bills where a formula is used to estimate consumption (e.g. water bills based on the number of persons per household or the size of the house), or where a flat rate fee is charged regardless of consumption (e.g. telephony or internet bills where the tariff allows unlimited usage). It also applies to prepayment customers, where a bill or account from the supplier is necessary to enable the customer to reconcile the amount paid in advance with the cost of consumption, or where the customer expects to receive a bill based on point of sale or other advertising (e.g. mobile telephony and energy metering) where codes, keys, electronic dongles or electronic cards are used to load and reload the service and to indicate what was purchased.

NOTE 4 Services that are not billed [e.g. mobile telephony paid for by pre-purchased SIM (Subscriber Identity Module) cards that are unmetered] and services that are funded directly by the taxpayer without bills being issued are not covered by this International Standard.

NOTE 5 Many of the key principles in this International Standard also apply to all forms of billing, and suppliers are therefore encouraged to adopt the relevant requirements in this International Standard for billing of other services.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 2.1

#### **account**

supplier's record of a customer's bill and associated charges, and of billing arrangements with the customer for the service(s) required, including customer information to assist with customer enquiries and credit assessment and management

### 2.2

#### **bill**

invoice issued by a supplier to a customer in paper or electronic form, notifying charges due to be paid by the customer for products and services purchased, requested, acquired or used by the customer

### 2.3 billing

function whereby charges generated by a network accounting function are transformed into bills

EXAMPLE The following processes are included within the billing function:

- calculating, applying and setting out the charges incurred by a customer during the billing period;
- calculating, applying and setting out any debts or credits outstanding or discounts due, and calculating the net amount to be paid by the customer or adjusted against prepayments made by the customer;
- issuing and delivering the bill;
- the incremental debiting of a prepaid account based on the service utilized;
- handling billing enquiries from the customer;
- receiving and acknowledging receipt of payments made by the customer.

### 2.4 billing accuracy

correctness of charges included in a bill to a customer, in terms of consistency with what the customer has requested, subscribed, purchased, acquired or utilized, and in compliance with the supplier's contracted or published tariffs and any discounts due

NOTE For a prepaid account, billing accuracy includes the incremental debiting of the account for the service used, based on the advertised rate.

### 2.5 billing address

address given by the customer to which the bill is provided

NOTE The address is either a postal address or an electronic address.

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### 2.6 billed charge

amount billed by a supplier to a customer

### 2.7 billing complaint

expression of dissatisfaction or grievance by a customer, to which the customer expects a response from the supplier, about any aspect of the customer's bill or the supplier's billing service

NOTE This includes complaints made verbally, by telephone or face to face, and complaints made in writing, by hard copy or electronically.

### 2.8 billing dispute

pursued, unresolved customer billing complaint

### 2.9 billing enquiry

request to a supplier by a customer for information about charges or other content on the supplier's bill, or about other aspects of the supplier's billing service, relevant to that customer

### 2.10 billing option

billing-related feature, usually at no charge, which a customer can choose

EXAMPLE Billing frequency.

### 2.11 billing period

period of time, typically a month or quarter, or the end dates to which charges are billed



**2.12****billing product**

enhanced billing-related offering, usually subject to a fee, to a customer or group of customers

**2.13****billing timeliness**

meeting of stipulated time-related performance standards associated with billing activities

**2.14****calibration**

expected and designed relationship in respect of prepayment meters, between energy or communication units consumed and payment made or debited

NOTE This includes any provision for debt recovery.

**2.15****charge**

tariff or fee levied by a supplier for the provision of a product, service or transaction, or for a third party product or service

**2.16****combined heat and power**

system that uses waste heat from electricity production, in order to provide hot water and space heating for neighbouring buildings

**2.17****communications**

fixed line and wireless telephony, including mobile and cell phones, satellite and cable television, and data services such as internet or multi-media entertainment

**2.18****consumer**

individual member of the general public, purchasing or using goods, property or services, for private purposes

NOTE For network billing, this will be a person other than the customer registered at that address who is entitled to use the service provided by the supplier to the bill payer.

**2.19****customer**

person or entity legally responsible for payment, or a consumer legally entitled to use the service provided by the supplier to the bill payer

NOTE To comply with privacy or data protection requirements, the authority of the bill payer or registered customer is required before dealing with another consumer on billing matters.

**2.20****customer vulnerability****customer in vulnerable circumstances**

temporary or permanent condition in which a customer is at greater than average risk of being put at a disadvantage in accessing the service, dealing with the supplier, or seeking redress, and/or can have particular problems due to unusually high need for the service, lack of suitable alternative services or severe financial difficulties

NOTE This term is used rather than the term “vulnerable customers”, because the latter term implies that vulnerability is a constant state and can be applied to set groups of people with certain characteristics, affecting all of their transactions and interactions. In reality, vulnerability can affect any customer and cannot be applied to fixed, identifiable groups of customers with certain characteristics or personal circumstances.

**2.21**  
**direct debit**  
**standing order**

automatic payment of a fixed or variable amount from the customer's nominated financial institution account, as agreed with the customer

NOTE This also includes regular fixed payments made by a standing order instruction given by customers to their bank.

**2.22**  
**discount**

pricing offer resulting in a variation, in the customer's favour, from a supplier's tariff or fee

NOTE These variations result from individual supplier/customer agreements, rebates as compensation for service interruptions or other incidents, or from wider market offerings.

**2.23**  
**district heating**

heating systems that distribute steam or hot water through pipes to a number of buildings across a district

NOTE Heat is provided from a variety of sources, including geothermal, combined heat and power plants, waste heat from industry, or purpose-built heating plants.

**2.24**  
**domestic customer**

end user or customer living in a domestic household supplied under a domestic contract or tariff, purchasing product for the customer's private, personal or household use, and excluding any commercial activities

NOTE This is the person normally permitted to discuss service and billing matters with the service provider.

**2.25**  
**electricity**

supply of mains electricity to customers from the grid, including electricity generated or exported by the customer and fed back into the electricity grid

**2.26**  
**electronic bill**

bill utilizing an electronic medium

**2.27**  
**essential service**

supply of electricity, water, sanitation, gas and district heating

**2.28**  
**gas supply**

supply of mains gas to customers through the transmission and distribution network

**2.29**  
**meter point administration/reference number**

unique reference number often used in gas and electricity allocated to the site supplied and registered, which does not relate to any particular meter installed at a property

**2.30**  
**payment method**

method used by the customer to pay for the service

EXAMPLES Prepaid; payment in arrears; direct debit.

**2.31**  
**prepayment**

purchase of a code, key, dongle or dongle content required prior to service usage being made available

NOTE This is commonly known as "pay-as-you-go".

**2.32****product**

good or service provided by the supplier

**2.33****sanitation**

provision of water and/or removal of waste water to or from sanitary appliances

**2.34****statement**

summary of information provided by a supplier recording items of debit and credit between itself and a customer

**2.35****supplier**

party undertaking to supply a service or services for which periodic billing is made

**2.36****supply point identification number**

unique identifier of a specific location to which a service is supplied

**2.37****tariff**

fixed or variable charge permitting calculation of the price to be levied by a supplier for the provision of a product or service during the period used

**2.38****third party**

relevant organisation or individual other than the supplier or customer

**2.39****third party charges**

charges billed by a supplier, on behalf of another commercial entity, for goods and services provided by that other commercial entity

**2.40****water**

water used for water supply

**2.41****working days**

days of the usual working week, excluding official public holidays

**3 Billing process****3.1 Pre-billing process****3.1.1 Data standards**

**3.1.1.1** Processes shall be established covering the collection, validation, update, retention, privacy and protection of all personal data that are obtained and used by the supplier or its agent for billing purposes, including calculation of consumption, to ensure that:

- a) the privacy and integrity of data held are maintained;
- b) the information shown on bills is correct.

**3.1.1.2** Where billing data are provided to the supplier by a third party (e.g. another supplier or a network operator), processes shall be established to ensure their validity and accuracy. If the data are subsequently retained by the supplier, then processes should also cover privacy and protection.