

EPS

Environmental Performance Survey

SUPPORTING GUIDE

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INTRODUCTION

The aim of this document is to provide a support during the EPS tool compilation.

It contains information on the EPS tool, its scope and scoring, instruction how to work on the EPS excel tool, explanations to support the comprehension of the questions, the list of evidences that shall be available for the verification and suggestions for the development of each topic.

We recommend to read each part of this document.

About the Environmental Performance Survey (EPS)

EPS is the tool used by IKEA to evaluate various environmental aspects of a [Transport & Service Provider \(TSP\)](#).

According to the IWAY Standard v.5.1 – Transport Section, requirement 4.8, all TSPs shall fill in the EPS before start of business, update it annually, and reach the minimum scores established for every section.

The EPS Questionnaire has to be filled-in and submitted to IKEA, every year within the end of February.

The EPS is divided into following 4 sections:

- General Section (applicable to all TSPs, regardless of the type of services they provide)
- Land Section (for [Land](#) carriers using own or subcontracted [HGV](#) for transport services including long-haul, [pre and on carriage](#) and [Category Service Business trunk line](#))
- Customer Delivery Section (for [Category Service Business last mile](#) transport services)
- Warehousing Section (for any external warehousing service, like [CPs](#), [LSCs](#), [hubs](#). This section is not applicable to Storage Areas located inside IKEA Retail stores)

General Section has to be filled-in by all TSPs. For the remaining sections, every TSP has to fill-in information, pertaining to the type(s) of services provided for IKEA.

Each section (e.g L) has a set of Chapters (e.g. L1), each Chapter of L, CD and W sections has a set of Paragraphs (e.g. L1.1) and each Chapter of G section and Paragraphs of L, CD and W section has a set of questions (e.g. G1q1, L1.1q1):

example

L section

 L1 (chapter)

 L1.1 (paragraph)

 L1.1q1 (question)

EPS Scope

The EPS questions cover the owned fleet and drivers used for IKEA transports, the 5 main subcontractors used for IKEA transports (both for Land and CSB) and all the warehouses where IKEA goods are stored, even temporarily (e.g. transits) or partially (e.g. warehouse used also for other Companies' goods storage).

Here are some examples of the applicable sections for typical TSPs:

A typical Land TSP:

G + L

A typical CD TSP (operating Local Service Centre, LSCs/Hubs):

G + CD + WHS

A typical CP Service Provider, with Land transport & Warehouse:

G + L + WHS

A typical CP Service Provider, with only Warehouse:

G + WHS

EPS Score

The answers to different Questions will have different scores, which are summarised in the final “score summary” sheet.

The higher the Score achieved by a TSP, the better is the environmental performance on the judged parameters. However, it is **mandatory** to achieve the Minimum score, for each of the applicable Sections, as follows:

General Section (G):	20
Land Section (L):	155
CD Section (CD):	160
Warehousing Section (WHS):	90

If a TSP is not able to achieve the **minimum mandatory score** in EPS, then the carrier has to initiate an Action Plan and improve the environmental performance according to the timelines agreed with IKEA. This would be done in consultation with the responsible Business Developer and Transport Sustainability Developer.

Once the EPS has been filled in, the “score summary” sheet shows the score and the implementation rate (%) detailed by Paragraph, by fleet owner (own fleet /sub contractors) and /or warehouse.

e.g. score summary for land section

	Score	Max	Min	%	test L	Is1	Is2	Is3	Is4	Is5
L1. Fuel & Perf mgmt systems	68	115		59%	95	85	85	85	65	55
L1.1 Fuel type	20	40		50%	40	40	40	40	10	10
L1.2 Fuel Consumption Monitoring	28	35		79%	35	25	25	25	35	25
L1.3 Fuel Management Programme	20	40		50%	20	20	20	20	20	20
L2. Info tech systems	82	140		59%	100	120	60		80	140
L2.1 Planning tools	48	60		80%	60	60	60		60	60
L2.2 Vehicle telematics	34	80		43%	40	60			20	80
L3. Driver behaviour	80	100		80%	90	70	50	90	70	80
L3.1 Fuel Efficiency Driver Training	40	50		80%	50	30	10	50	30	40
L3.2 Speed Restrictions	23	30		77%	30	30	30	20	20	20
L3.3 Idling Time	17	20		85%	10	10	10	20	20	20
L4. Vehicle specifications	92	140		66%	140	140	140	80	60	60
L4.1 Engine characteristics – Friction reduction	6	20		30%	20	20	20			
L4.2 Improving Aerodynamics	40	50		80%	50	50	50	40	30	30
L4.3 Tyres – Low Rolling Resistance	40	50		80%	50	50	50	40	30	30
L4.4 Tyres – Pressure Monitoring System	6	20		30%	20	20	20			
L5. Vehicle maintenance	22	30		73%	30	30	30	30	30	
L6. Emissions equivalent	27	50		55%	10	50	20	50	22	10
Land section TOTAL	371	575	155	65%	465	495	385	335	327	345

How to fill-in the EPS

1. Open the EPS excel file and enable the macros to be able to use the file properly.
2. Fill in **all** the requested information in Sheet G1 Company Details, including the tables related to the service performed for IKEA:
Land Carriers/ CSB Trunk line: *Table 1*
CSB Last Mile: *Table 2*
LSC/Hubs/CP Operators: *Table 3*
3. Press the button “Create Sheets” located at the bottom of the Sheet G1 Company Details (under table 3). This will allow the tool to create one sheet for each Chapter of the applicable Section(s), where you will find the questions related to your business.
4. Replay **all** the questions shown, with the support of this document and the information shown above each paragraph in the EPS excel tool.
Please notice that:

- for many questions, a set of possible answers are given, while for the rest, you'll be asked to write a description in free text.
- additional questions will pop up only after you have filled in the information requested in the previous field
- each sheet corresponds to an EPS Chapter (e.g.L1) and may contain more than one Paragraph (E.g. L1.1, L1.2, etc) with several questions: remind to scroll until the end of each sheet to verify that you don't miss any question.

TSP should answer the question based on the true reality with real information and shall be able to provide evidences to prove the information given (see the list of evidences mentioned here below and in the EPS excel tool for each question).

The information provided in the EPS shall reflect the up-to-date situation, for that reason the TSP shall fill in the EPS by considering the current business set up.

The only question for which you shall consider a certain time frame is the L / CD 1.1 Fuel Type: when reply this question please refer to the latest month.

For a new TSP, the data shall be for their regular biggest sub-contractors, or the sub-contractors that will most likely be involved in IKEA business. After the new set-up has been established the TSP will be requested to fill in a new EPS with real and up-to-date information.

GENERAL SECTION

G1. COMPANY DETAILS

Date (when EPS is filled in):

Company

Company name:

Address / location of the head office:

Environmental responsible

Name:

Email:

Phone number (including country code):

% of time working for environment:

Other tasks performed other than environment? Describe:

TABLE 1 (Land transport) and TABLE 2 (CSB transports)

Own Fleet & Sub-contractors

Name of and share of IKEA volume for the 5 largest subcontractors used for IKEA transports

Name / share of IKEA volume (%)

Number of trucks involved in IKEA business

Number of drivers involved in IKEA business

Total number of subcontractors used for IKEA transports

TABLE1

LAND transport: Own Fleet & Sub-contractors

Name of and share of IKEA volume for the 5 largest subcontractors used for IKEA transports				
	Name	Share of IKEA volume (%)	Number of Trucks involved in IKEA business	Number of Drivers involved in IKEA business
Own				
Sub 1				
Sub 2				
Sub 3				
Sub 4				
Sub 5				
Total		0%	0	0
Total number of subcontractors used for IKEA transports				

TABLE2

CSB transport: Own Fleet & Sub-contractors

Name of and share of IKEA volume for the 5 largest subcontractors used for IKEA transports				
	Name	Share of IKEA volume (%)	Number of Trucks involved in IKEA business	Number of Drivers involved in IKEA business
Own				
Sub 1				
Sub 2				
Sub 3				
Sub 4				
Sub 5				
Total		0%	0	0
Total number of subcontractors used for IKEA transports				

CP Code/CD LSC No.
Self owned / Rented
Address
Number of Co-workers
Share of IKEA volume (%)
Total area (m²)
Total storage capacity (m³)

CP Code/ CD LSC No	Self owned / Rented	Address	Number of Co-workers	Share of IKEA volume (%)	Total area (m²)	Total storage capacity (m³)
Total			0	0%	0	0

Click on

Create sheets

This will allow the tool to create one sheet for each Chapter of the applicable Section(s), where you will find the questions related to your business.
All the sheets and the questions contained therein are detailed and explained here below.

G2. ENVIRONMENTAL MANAGEMENT SYSTEM

Explanation

Having an Environmental Management System (EMS) according to the international standard ISO 14001 or the European standard EMAS (Eco-Management and Audit Scheme) in place, helps to structure the environmental work and keep the focus on continuous improvements.

Verification/certification by third party increases the credibility and transparency of both the EMS and the company.

The Environmental Management System must be valid and continuously updated.

WAY is not an Environmental Management Policy or System.

Definitions

"Environmental Management System": a management system of an organization's environmental program that is structured in a comprehensive, systematic, planned and documented manner. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection.

"Environmental Policy": a document that defines the overall intentions and direction of an organization, related to its environmental performance, as formally expressed by top management. It provides a framework for action and for the setting of environmental objectives and targets.

"General Environmental Improvement Plan": a plan designed to guide a company's environmental performance through a process of continuous improvement. In their simplest form, these plans are a schedule of prioritised projects designed to achieve specific environmental objectives. Each project is

clearly defined in terms of a series of objectives, actions with a time plan for their implementation and anticipated improvements or outcomes by which performance can be measured.

Evidences

- Copy of the certificate issued by a third-party certification body (certificate must be valid)
- Copy of the environmental policy
- Copy of the General Environmental Improvement Plan

Score

The score is assigned for your company only. No score is assigned to subcontractors.
The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have an Environmental Policy or Environmental Management System?
Yes
No (0)
2. If Yes – choose the level of implementation:
Environmental policy exists, but EMS is not fully developed or externally certified (5)
General Environmental Improvement Plan exists, but EMS is not fully developed or externally certified (10)
EMS fully developed and implemented for some operations, and externally certified (according to ISO 14001 or EMAS) (15)
EMS fully developed and implemented for all operations, and externally certified (according to ISO 14001 or EMAS) (20)
3. If your EMS is externally certified - specify the following details of the certification you hold:
Date of first external certification
Date of validity of the certificate
Operations of your company covered by the certified EMS

G3. ANNUAL ENVIRONMENTAL / SUSTAINABILITY REPORT

Explanation

An environmental report is an important tool that carriers can develop in order to evaluate the positive and the negative impacts that their operations have. It shall report this information using key performance indicators.

The environmental report shall include information on the impact of your business' activities on the environment - both positive and negative. You should look at areas where your business makes a significant environmental impact, for example:

- carbon emissions
- waste generation and recycling
- energy use

Definitions

"*Environmental report*" - disclosure by a company of its environmental performance information. It is similar to the publication of its financial performance information.

"*Sustainability report*" - an organizational report that gives information about economic, environmental, social and governance performance of the company over time.

Evidences

- Latest environmental / sustainability report
- Proof of publication (e.g. web site address)

Score

The score is assigned for your company only. No score is assigned to subcontractors.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions:

1. Do you produce an annual environmental / sustainability report?

Yes
No

(10)
(0)

2. Do you make it publicly available?

Yes
No

(10)
(0)

G4. GREEN FREIGHT INITIATIVES

Explanation

Green freight initiatives are becoming increasingly popular all over the world. They are voluntary initiatives, to which companies involved in the freight business can join, and aim at achieving more environmental transportation, by improving the fuel efficiency of transport operations and by promoting engagement and collaboration across companies.

Being part of one (or more) green freight initiatives give the carriers the competitive advantage of having access to technologies, management solutions and other type of actions that lead to more environmental transportation operations.

Examples of green freight initiatives are: [Green Freight Europe](#), [Green Freight Asia](#), [FleetSmart \(Canada\)](#), [Transporte Limpio \(Mexico\)](#), [Lean&Green \(Netherlands\)](#).

Evidences

- Evidence of present membership in the green freight initiative (invoice of annual membership paid, name of the carrier included in the updated list of members, or similar)

Score

The score is assigned for your company only. No score is assigned to subcontractors.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Are you a member of a green freight initiative?

Yes
No

(5)
(0)

2. If yes - which initiative(s)?

3. Are you an active member, meaning are you member of any working groups?

(5)

4. If yes - which working group(s)?

5. Do you participate in the annual meetings of the initiative(s)?

Yes

No

(5)
(0)

G5. ENVIRONMENTAL WORKING GROUPS, COLLABORATIONS, PILOT PROJECTS

Explanation

Being part of external working groups, pilot or research projects, and other types of activities that promote the development of solutions towards minimizing the environmental impacts from operations is a good way for carriers to take the lead in their environmental work.

Participating in this type of initiatives allows the carriers to get valuable input in how to improve their operations, from an environmental point of view.

Examples of topics that these working groups, pilot/research projects or voluntary initiatives may focus on are:

- The reduction of emissions from transportation
- Alternative fuels
- Renewable energy
- Optimization of freight solutions

Evidences

- Document(s) that evidence that the carrier is a participant in the working group, or pilot or research project, or collaborates in voluntary environmental initiatives.
- Short description of the aim of the working group / project that the carrier is involved in.

Score

The score is assigned for your company only. No score is assigned to subcontractors.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Have you participated in any environmental working group, or pilot / research project, or voluntary environmental initiative developed in the past 3 years?

Yes

No

(20)
(0)

2. If Yes - which ones? What was the role of your company in this (these) initiative(s)?

G6. ENVIRONMENTAL CRITERIA TO SELECT SUPPLIERS / SUBCONTRACTORS

Explanation

When choosing suppliers or subcontractors to support operations, carriers can use different criteria for the selection. Other than price and delivery conditions, it is encouraged that carriers also use pre-defined environmental criteria to select which their suppliers.

Some examples of environmental criteria that can be used to evaluate suppliers are:

- Staff training
- Choice of chemicals, fuels, and consumables in general that have environmental labels
- Energy management
- Environmental management system or policy in place
- Cooperation with partners in environmental initiatives

Evidences

- Purchasing procedure with the list of environmental criteria used to evaluate the suppliers, from an environmental performance point of view, and description on how these criteria are used for purchase decisions.
- Example of a supplier that has been chosen, where environmental criteria have been taken into consideration in the choice.

Score

The score is assigned for your company only. No score is assigned to subcontractors.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you use any environmental criteria when choosing the suppliers and the carriers you work with?
Yes (20)
No (0)
2. If yes - which environmental criteria do you use to evaluate the potential suppliers and the carriers?
3. Please describe, how you integrate them in the overall purchase decision process?

L1. FUEL AND PERFORMANCE MANAGEMENT SYSTEMS

L1.1. Fuel type

Explanation

Examples of alternative fuels include: Biodiesel, DME (Dimetylether), RME (Rapeseed Methyl Ester), Biogas, Natural gas, Ethanol, Methanol or Synthetic diesel.

Alternative fuels could be used as a blend (e.g. B10, B20) in or pure (e.g. B100) in the whole or a part of the fleet.

The percentage should be calculated considering the share of alternative fuel used in the latest month.

In Europe, 'normal' diesel has a blend in of alternative fuels of between 1-7%. Therefore, if using normal European diesel only, between 1 to 7% should be the answer.

Evidences

- Technical specification of the Alternative Fuels used
- Records (invoices, internal reports) of fuel consumption
- Information on % of Alternative Fuel in Fossil fuel

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. % of alternative fuel of the total fuel used in the latest month:

Up to 10%

11-50%

51-100%

(10)

(20)

(40)

2. What alternative fuel(s) are used?
3. Is the alternative fuel blended with fossil fuel?
4. If yes - what % of alt fuel is blended?
5. What % of the fleet uses the alternative fuel?

L1.2. Fuel Consumption Monitoring

Explanation

The fuel consumption shall be followed up on individual driver level and the driver shall be informed and be given feedback of his/her own result over time.

Follow up can be done manually or be system based.

Fuel consumption monitoring shall preferably be connected to a bonus/reward program, to motivate drivers into increasing the saving effects.

At least 90% of the drivers need to be enclosed in the fuel consumption monitoring system to cover this question.

Definitions

"Manual follow-up": follow-up based on fuel cards, invoices for fuel or similar; information collected in Excel (or any other programme not specifically designed to monitor fuel consumption).

"System supported follow-up": an onboard computer system which records fuel consumption and allows reports, analysis, etc on the driver level.

"Bonus/reward programme": a structured system for rewarding fuel efficient drivers with money, driver's recognition, newer vehicles, etc.

Evidences

- Example of data monitored or Print Screen from system
- Company`s policy with information about bonus system
- Proof of bonus/rewards given to drivers, based on their good performance

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

- | | |
|--|------|
| 1. Fuel consumption monitoring on individual driver level. Select follow-up method | |
| Manual follow up | (15) |
| System supported follow up | (25) |
| Describe the system | |
| Manual follow up + Bonus program | (25) |
| Describe the bonus program | |
| System supported follow up + Bonus program | (35) |
| Describe the system and the bonus program | |

L1.3. Fuel Management Programme

Explanation

A fuel management programme is a structured method that enables the carrier to monitor and manage the fuel, from the point of entry of the fuel into the carrier's operation, to the fuel point of use.

It is a management system, not a "hard" fuel saving measure, and identifies actions that shall be implemented and followed-up, in order to achieve fuel savings. Evidence shows that Fuel Management Programmes that are applied appropriately lead to fuel savings of around 5% (source: ["Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies"](#), by Faber Maunsell, March 2008).

For more details on how to develop and implement a Fuel Management Programme, use the "Fuel Management Guide", published by the UK Freight Best Practice programme. The document can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/saving-fuel>

Evidences

- Fuel Management Programme developed
- Proof that the Fuel Management Programme is implemented, namely by showing the system that is used to measure the performance on fuel efficiency and to actually manage the fuel.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a Fuel Management Programme developed?
Yes (20)
No (0)
2. If yes - Have you implemented the Fuel Management Programme, and do follow-ups?
Yes (20)
No (0)

L2. INFORMATION TECHNOLOGY SYSTEMS

L2.1. Planning tools (vehicle routeing and scheduling)

Explanation

Planning tools are especially important, when customer location data needs to be combined with delivery or collection data, while taking into consideration other aspects, like vehicle capacity, drivers' and co-workers' availability and working times. These planning tools contribute to optimizing vehicle operations, and to develop efficient delivery schedules for the carrier's fleet.

When used properly, these information technology systems can bring fuel savings of around 5%. Furthermore, these systems have the following advantages:

- Improve the utilisation of transport resources
- Reduce journey times
- Minimise vehicle mileage
- Reduce operating costs
- Improve the reliability of delivery schedules

At least 90% of the fleet need to be enclosed in the Planning tools to cover this question.

For more details on how to build an IT planning tool and how to use it, check the "Computerised Vehicle Routing and Scheduling (CVRS) for Efficient Logistics", published by the UK Freight Best Practice programme. The document can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Evidences

- Evidence that the carrier has a planning tool to optimize deliveries, and details on how this planning tool works (for example, which information is used by the planning tool to optimize routes, deliveries, loads, worker's working times, etc).
- Evidence that a follow-up on the implementation of the planning tool is done on a regular basis. Follow-up can be done through a system review meeting (show minutes of the meeting), evaluation

report on the success level of the system, excel file with evaluation of gains / savings from the implementation of the system.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have an IT system, a planning tool, which you use to optimize your routes, loads, deliveries, etc?
Yes (20)
No (0)
2. If yes - can the driver receive real time information from the system (e.g traffic conditions and other road data)?
Yes (20)
No (0)
3. Do you have regular follow-ups on the savings that the planning tool you use bring to your company?
Yes (20)
No (0)

L2.2. Vehicle telematics (vehicle & driver information systems)

Explanation

Telematics systems collect, analyse and transfer data between a vehicle and a remote location, usually the carrier's operating base. These systems have varying capabilities depending on manufacturer and cost, but can analyse various information, such as speed, number of gear changes, over revving, MPG achieved, CO2 emissions, harsh braking, idle time etc..

The equipment can monitor these factors continually, whilst the vehicles are in use and then output the data to programmes such as MsExcel or to other systems. This allows the carrier to compare the performance of different drivers using the same vehicles, and to compare the vehicles themselves against others in the fleet.

This information, particularly if used for benchmarking, can help the carriers identify the areas where the biggest cost savings can be made, and where efforts shall be focused most effectively. Importantly this information can be available in real time, which might allow identifying and rectifying a problem as it happens, rather than picking up the pieces afterwards.

For more details on vehicle telematics systems, check the following publications, which can be downloaded for free:

- "Truck Tech for Freight Operators – IT and Telematics explained", published by the UK Freight Best Practice programme: http://www.isc-consultants.co.uk/ISC/Distribution_Resources_1_files/FBP%201134%20WEB%20SMALLER.pdf
- "Telematics for Efficient Road Freight Operations", and other useful guides published by the UK Freight Best Practice programme, can be found here: <http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Definitions

"Telematics": the use of computer systems to control or monitor remote components, devices or systems. It usually consists of an on-board computer, a satellite / GPS receiver, and a communications device.

Evidences

- Description of the telematics system used by the carrier, including the parameters
- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that are covered by the telematics system

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a telematics system implemented in your operations?
2. If yes - what percentage of the fleet is covered by the telematics system?
Up to 50% (20)
>50% (60)
3. If yes, does your telematics system give real-time information and feedback back to the driver? (20)

L3. DRIVER BEHAVIOUR

L3.1. Fuel Efficiency Driver Training

Explanation

The fuel efficiency driver training explains how to save fuel, and shall consist of both a practical (real driving) and a theoretical (lecture, instructions) part.

Follow-up trainings need to be done at least once every 3 (three) years.

The trainer may be internal or external, but must have documented expertise in fuel efficient driving." All trainings need to be well documented.

Definitions

"Fuel efficiency driver training": training that provides knowledge of good driving style to the drivers. It shall include practical and theoretical training, and can cover topics such as braking, acceleration, idling time, speeding and transmission.

"Trainer with documented expertise in fuel efficient driving": trainer that has a certificate to perform the fuel efficiency driver training. Alternatively, it can also be a more experienced driver or company owner, as long as he/she has attended the training on "how-to-train", and there is a certificate/document that evidences this.

Evidences

- List of all drivers transporting IKEA goods
- Fuel efficient driving training records for each driver

- Contents of the trainings – topics, description
- Certificate of all trainers – both internal and external

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of drivers involved in IKEA business
2. Number of drivers involved in IKEA business that had both practical and theoretical fuel efficient driving training
[fill in the number of drivers that get this training and the tool calculates the %]

1-20%	(10)
21-40%	(20)
41-60%	(30)
61-80%	(40)
81-100%	(50)
3. Who performs the training? Is it a certified trainer?
4. How often is the training carried out?

L3.2. Speed Restrictions

Explanation

Optimised speed can lead to reduced fuel consumption and thereby lower CO2 emissions.

At least 90% of the fleet need to be enclosed in the speed restrictions management to cover this question.

Definitions

"Speed restriction management": refers to a optimized speed defined by your company. The optimized speed should always be below local legal restriction.

"System supported follow-up": a computer based system which records and allows analysis of the speed of a vehicle.

"System supported follow-up with real-time update": a computer based system which can monitor the current speed of a vehicle and is connected to the main office, so that the necessary feedback can be given to the driver, if any driver exceeds maximum speed limit.

Evidences

- Copy of Speed Restriction Policy
- Technical specification of the speed limiter(s) used
- Copy of a follow-up report

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. How do you manage the speed restrictions? Choose level of follow up:
 - Communicated policy (10)
 - How is the policy communicated?
 - System supported follow up (20)
 - What system is used?
 - System supported follow up with real time update (30)
 - What system is used?
 - How is the speed monitored?

L3.3. Idling Time

Explanation

Idling, which does not support work, adds to the fuel consumption and thereby contributes to CO2 emissions and air pollution.

The carrier shall have a written policy, regulating the behaviour of the drivers during the idling time, that is communicated to all drivers.

Follow up on the idling time shall be done on the individual driver level.

At least 90% of the fleet need to be enclosed in the Idling Time regulation to cover this question.

Definitions

"Idling": when vehicle is not moving, but the engine is still running - for example, when it is parked for loading & unloading, or during waiting periods for loading & unloading.

"Vehicle data follow-up system": a computer based system that records parameters of engine work and allows drawing reports, analysis, etc.

Evidences

- Copy of written policy, regulating Idling Time
- Screenshot of system/ copy of report that is used for following up on idling on driver level.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Idling time management – which type of management is used?
 - Communicated policy (10)
 - How is the policy communicated?
 - Vehicle data follow up (20)

L4. VEHICLE SPECIFICATIONS

L4.1. Engine characteristics – Friction reduction

Explanation

By reducing the friction in the engine, it is possible to gain improvements in the engine efficiency and simultaneously save on fuel consumption. Evidence shows that fuel savings achieved are around 2% (source: [“Review of Low Carbon Technologies for Heavy Goods Vehicles”, by Ricardo plc, Jun 2009](#)), when implementing engine friction reduction techniques.

There are several types of techniques that can be used to achieve engine friction reduction:

- Improvements in the piston, piston ring and cylinder liner package;
- Cylinder axis off-set, to reduce the force at the cylinder fire condition
- The use of engine oil with reduced viscosity and the introduction of oil additives.

The present chapter focuses on promoting carriers the implementation of the engine oils with reduced viscosity and the introduction of oil additives.

At least 90% of the fleet need to use low viscosity oil to cover this question.

Definitions

“Engine Friction”: the friction that is caused by everything that goes into the engine and items that run off of the engine. Refers to the bearings for the crankshaft, connecting rods and camshaft(s), as well as the friction in the valve train, from the lifters, rocker arms and the valve springs.

Another issue with Engine Friction are the items connected to the engine via drive belts. These items include (but not limited to) the alternator, power steering pump, water pump, air conditioning compressor and sometimes the cooling fan.

Evidences

- Technical specification of the low viscosity oil used, to reduce the engine friction
- Technical specification of the oil additives used, to reduce the engine friction

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The “Score Summary” worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you use any specific engine oil with low viscosity, or any oil additives, in order to reduce the engine friction?

Yes

No

(20)
(0)

2. If yes, which type and brand of engine oil / oil additives do you use? (For IKEA information only!)

L4.2. Improving Aerodynamics

Explanation

Aerodynamics is an important characteristic in trucks, in the sense that when a vehicle moves, the air exerts a force on the vehicle that resists its motion. This is called the “aerodynamic drag”, and it has a significant effect on the fuel consumption of the vehicles.

The drag is affected by the shape of the vehicle, the frontal area and the speed of the vehicle.

Trucks that have aerodynamics fittings installed can get lower fuel consumption that range between 5 and 15% (source: "[Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies](#)", by Faber Maunsell, March 2008), when compared with trucks with no fittings.

Examples of aerodynamics fittings that can be installed to trucks are:

- Aerodynamics fairings (for vehicles, cabin)
- Aerodynamically shaped trailers
- Trailer spray suppressers

For more details on the aerodynamics fittings that can be installed in the trucks, check the following publications: "Quick Guide to Truck Aerodynamics" and "Aerodynamics for Efficient Road Freight Operations", which can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Definitions

"Aerodynamics": the study of the forces that act on objects moving through the air.

Evidences

- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that have Aerodynamics Fittings installed
- Description / specification of the aerodynamics fittings used in the trucks

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business

2. Number of above trucks which are equipped with aerodynamics fittings (either coming from factory, or fittings that have been installed later on)

[fill in the number of trucks equipped with aerodynamics fittings and the tool calculates the %]

1-20%

(10)

21-40%

(20)

41-60%

(30)

61-80%

(40)

81-100%

(50)

3. Description of the aerodynamics fittings used

L4.3. Tyres – Low Rolling Resistance

Explanation

This question refers to the tractor only and not the trailer.

Low rolling resistance tyres reduce fuel consumption substantially, when compared to regular tyres, resulting in a quick return on investment, and lower CO2 emissions.

For more details on the use of LRR tyres and related case study, check the publication "Save Fuel with Lower Rolling Resistance Tyres", which can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Definitions

"Low Rolling Resistance Tyres": energy saving tyres. EU tyres' labelling: fuel consumption classification A-B and C

Low rolling resistance tyres reduce fuel consumption compared to regular tyres.

Super Single tyres / single Wide tyres are also considered to be low rolling resistance.

Evidences

- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that have Low Rolling Resistance Tyres
- Specification / fact sheet / EU label of the tyres used
- Supply agreement / invoice with tyre supplier(s)

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business

2. Number of above trucks (tractor part ONLY) which use low rolling resistance tyres

[fill in the number of trucks equipped with LRR tyres and the tool calculates the %]

1-20%

21-40%

41-60%

61-80%

81-100%

(10)

(20)

(30)

(40)

(50)

3. Full name of tyres (brand, type) and type of tyres used (for example EN XL-259) (For IKEA information only!)

L4.4. Tyres - Pressure Monitoring System

Explanation

Having the correct tyre pressure is an easy and effective way to reduce fuel consumption. Monitoring can be performed by anyone (the driver, the maintenance workshop, and external company) and shall be done either manually (with a pressure gauge) or be system supported (on board technology). Monitoring shall be done at least once per month.

At least 90% of the fleet need to be enclosed in the pressure monitoring system to cover this question.

Evidences

- List of all trucks that are used for IKEA transports
- Copy of testing routine (or proof of onboard system)
- Example of reports if available

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a tyre pressure monitoring system or routines, to verify pressure at least once per month?
Yes (20)
No (0)
2. Describe the routine. How is it documented?

L5. VEHICLE MAINTENANCE

Explanation

With vehicle maintenance, this section means "preventive maintenance". It involves that the carrier makes sure that trucks are always kept in good shape, in order to help minimize the chance of defects occurring, and to help find ways to improve the efficiency of the trucks.

Examples of "preventive maintenance" are: daily truck checks, systematic and documented safety instructions done regularly (and with a pre-defined frequency), tyre management, laser wheel alignment, etc.

Just to give an example on benefits of have preventive maintenance, there are case studies that prove that the using the laser wheel alignment on a regular basis brings improvements in the fuel consumption of 2 to 5% (source: "[Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies](#)", by Faber Maunsell, March 2008).

For more details on the use of LRR tyres and related case study, check the publication "Preventative Maintenance for Efficient Road Freight Operations", which can be downloaded for free under: <http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/operational-efficiency>

At least 90% of the fleet need to be enclosed in the preventive maintenance system to cover this question.

Evidences

- Records of the activities that are done regularly within the "preventive maintenance" approach to the trucks.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a preventive vehicle maintenance system (PVMS), that you apply to the trucks of your fleet in a regular basis, as per manufacturer's specifications?
Yes (30)
No (0)
2. Describe the activities that you include in the preventive vehicle maintenance system, and how often you perform each type of activities.

L6. EMISSIONS EQUIVALENT

Explanation

This question refers to the tractor only and not the trailer.

Referring to Transport section 4.9 Vehicle emission requirements, which is part of IWAY start-up requirements. For trucks gross weight above 3.5 tonnes need to fulfil maximum 10 year old national emission standards for engines. In countries where no emission classification exists, truck age is to be applied instead of emission standards. By using younger fleet where stricter emission standards apply, it can be secured that the emissions like CO, NOx and PM are reduced greatly. CO, NOx and PM have negative impact on human health.

The purpose of this question is to give scores to the trucks exceeding the Transport section 4.9 Vehicle emission requirements in national emission standard or truck age requirement.

For details on the main national emission standards check: <http://www.dieselnit.com/standards/>

Definitions

"Emission standards": Emission standards are requirements that set specific limits to the amount of pollutants that can be released into the environment. Emission performance standards have been used to dictate limits for conventional pollutants such as oxides of nitrogen and oxides of sulphur (CO, NOx, PM and SOx)

Evidences

- List of national emission standards
- List of all trucks that are used for IKEA transports with year of production and /or emission standard

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business.
2. Are there emission standards for your country/Area?*
3. *If yes - How many of those trucks fulfil the 10 year old national emissions standard?
4. How many of those trucks fulfil the national emissions standard that was valid 5 years ago from today's date?
[fill in the number of trucks fulfilling the national emissions standard that was valid 5 years ago and the tool calculates the %]

1-20%	(10)
21-40%	(20)
41-60%	(30)
61-80%	(40)
81-100%	(50)
5. *If there are no applicable emission standards - fill in the number of trucks by age

Trucks between 5-9 years	Max points 10
Trucks 4 years old	Max points 20
Trucks 3 years old	Max points 30
Trucks 2 years old	Max points 40
Trucks 1 year old	Max points 50

The scoring is based on trucks age and is calculated as follow: Scoring = Number of Trucks ÷ Total number of Trucks × Max points possible

CD1. FUEL AND PERFORMANCE MANAGEMENT SYSTEMS

CD1.1. Fuel type

Explanation

Examples of alternative fuels include: Biodiesel, DME (Dimetylether), RME (Rapeseed Methyl Ester), Biogas, Natural gas, Ethanol, Methanol or Synthetic diesel.

Alternative fuels could be used as a blend (e.g. B10, B20) in or pure (e.g. B100) in the whole or a part of the fleet.

The percentage should be calculated considering the share of alternative fuel used in the latest month.

In Europe, 'normal' diesel has a blend in of alternative fuels of between 1-7%. Therefore, if using normal European diesel only, between 1 to 7% should be the answer.

Evidences

- Technical specification of the Alternative Fuels used
- Records (invoices, internal reports) of fuel consumption
- Information on % of Alternative Fuel in Fossil fuel

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. % of alternative fuel of the total fuel used in the latest month:

Up to 10%

11-50%

51-100%

(10)
(20)
(40)

2. What alternative fuel(s) are used?
3. Is the alternative fuel blended with fossil fuel?
4. If yes - what % of alt fuel is blended?
5. What % of the fleet uses the alternative fuel?

CD1.2. Fuel Consumption Monitoring

Explanation

The fuel consumption shall be followed up on individual driver level and the driver shall be informed and be given feedback of his/her own result over time.

Follow up can be done manually or be system based.

Fuel consumption monitoring shall preferably be connected to a bonus/reward program, to motivate drivers into increasing the saving effects.

At least 90% of the drivers need to be enclosed in the fuel consumption monitoring system to cover this question.

Definitions

"Manual follow-up": follow-up based on fuel cards, invoices for fuel or similar; information collected in Excel (or any other programme not specifically designed to monitor fuel consumption).

"System supported follow-up": an onboard computer system which records fuel consumption and allows reports, analysis, etc on the driver level.

"Bonus/reward programme": a structured system for rewarding fuel efficient drivers with money, driver's recognition, newer vehicles, etc.

Evidences

- Example of data monitored or Print Screen from system
- Company's policy with information about bonus system
- Proof of bonus/rewards given to drivers, based on their good performance

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

- | | |
|--|------|
| 1. Fuel consumption monitoring on individual driver level: select follow-up method | |
| Manual follow up | (15) |
| System supported follow up | (30) |
| Describe the system | |
| Manual follow up + Bonus program | (30) |
| Describe the bonus program | |
| System supported follow up + Bonus program | (50) |
| Describe the system and the bonus program | |

CD1.3. Fuel Management Programme

Explanation

A fuel management programme is a structured method that enables the carrier to monitor and manage the fuel, from the point of entry of the fuel into the carrier's operation, to the fuel point of use.

It is a management system, not a "hard" fuel saving measure, and identifies actions that shall be implemented and followed-up, in order to achieve fuel savings. Evidence shows that Fuel Management Programmes that are applied appropriately lead to fuel savings of around 5% (source: ["Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies"](#), by Faber Maunsell, March 2008).

For more details on how to develop and implement a Fuel Management Programme, use the "Fuel Management Guide", published by the UK Freight Best Practice programme. The document can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/saving-fuel>

Evidences

- Fuel Management Programme developed
- Proof that the Fuel Management Programme is implemented, namely by showing the system that is used to measure the performance on fuel efficiency and to actually manage the fuel.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a Fuel Management Programme developed?
Yes (20)
No (0)
2. If yes - Have you implemented the Fuel Management Programme, and do follow-ups?
Yes (20)
No (0)

CD2. INFORMATION TECHNOLOGY SYSTEMS

CD2.1. Planning tools (vehicle routeing and scheduling)

Explanation

Planning tools are especially important, when customer location data needs to be combined with delivery or collection data, while taking into consideration other aspects, like vehicle capacity, drivers' and co-workers' availability and working times. These planning tools contribute to optimizing vehicle operations, and to develop efficient delivery schedules for the carrier's fleet.

When used properly, these information technology systems can bring fuel savings of around 5%. Furthermore, these systems have the following advantages:

- Improve the utilisation of transport resources
- Reduce journey times
- Minimise vehicle mileage
- Reduce operating costs
- Improve the reliability of delivery schedules

At least 90% of the fleet need to be enclosed in the Planning tools to cover this question.

For more details on how to build an IT planning tool and how to use it, check the "Computerised Vehicle Routing and Scheduling (CVRS) for Efficient Logistics", published by the UK Freight Best Practice programme. The document can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Evidences

- Evidence that the carrier has a planning tool to optimize deliveries, and details on how this planning tool works (for example, which information is used by the planning tool to optimize routes, deliveries, loads, worker's working times, etc).
- Evidence that a follow-up on the implementation of the planning tool is done on a regular basis. Follow-up can be done through a system review meeting (show minutes of the meeting), evaluation report on the success level of the system, excel file with evaluation of gains / savings from the implementation of the system.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have an IT system, a planning tool, which you use to optimize your routes, loads, deliveries, etc?
Yes (20)
No (0)
2. If yes - can the driver receive real time information from the system (e.g traffic conditions and other road data)?
Yes (30)
No (0)
3. Do you have regular follow-ups on the savings that the planning tool you use bring to your company?
Yes (10)
No (0)

CD2.2. Vehicle telematics (vehicle & driver information systems)

Explanation

Telematics systems collect, analyse and transfer data between a vehicle and a remote location, usually the carrier's operating base. These systems have varying capabilities depending on manufacturer and cost, but can analyse various information, such as speed, number of gear changes, over revving, MPG achieved, CO2 emissions, harsh braking, idle time etc..

The equipment can monitor these factors continually, whilst the vehicles are in use and then output the data to programmes such as MsExcel or to other systems. This allows the carrier to compare the performance of different drivers using the same vehicles, and to compare the vehicles themselves against others in the fleet.

This information, particularly if used for benchmarking, can help the carriers identify the areas where the biggest cost savings can be made, and where efforts shall be focused most effectively. Importantly this information can be available in real time, which might allow identifying and rectifying a problem as it happens, rather than picking up the pieces afterwards.

For more details on vehicle telematics systems, check the following publications, which can be downloaded for free:

- "Truck Tech for Freight Operators – IT and Telematics explained", published by the UK Freight Best Practice programme: http://www.isc-consultants.co.uk/ISC/Distribution_Resources_1_files/FBP%201134%20WEB%20SMALLER.pdf
- "Telematics for Efficient Road Freight Operations", and other useful guides published by the UK Freight Best Practice programme, can be found here: <http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Definitions

"Telematics": the use of computer systems to control or monitor remote components, devices or systems. It usually consists of an on-board computer, a satellite / GPS receiver, and a communications device.

Evidences

- Description of the telematics system used by the carrier, including the parameters
- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that are covered by the telematics system

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a telematics system implemented in your operations?
2. If yes, what percentage of the fleet is covered by the telematics system?
Up to 50% (20)
>50% (40)
3. If yes, does your telematics system give real-time information and feedback back to the driver? (20)

CD3. DRIVER BEHAVIOUR

CD3.1. Fuel Efficiency Driver Training

Explanation

The fuel efficiency driver training explains how to save fuel, and shall consist of both a practical (real driving) and a theoretical (lecture, instructions) part.

Follow-up trainings need to be done at least once every 3 (three) years.

The trainer may be internal or external, but must have documented expertise in fuel efficient driving." All trainings need to be well documented.

Definitions

"Fuel efficiency driver training": training that provides knowledge of good driving style to the drivers. It shall include practical and theoretical training, and can cover topics such as braking, acceleration, idling time, speeding and transmission.

"Trainer with documented expertise in fuel efficient driving": trainer that has a certificate to perform the fuel efficiency driver training. Alternatively, it can also be a more experienced driver or company owner, as long as he/she has attended the training on "how-to-train", and there is a certificate/document that evidences this.

Evidences

- List of all drivers transporting IKEA goods
- Fuel efficient driving training records for each driver
- Contents of the trainings – topics, description
- Certificate of all trainers – both internal and external

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of drivers involved in IKEA business
2. Number of drivers involved in IKEA business that had both practical and theoretical fuel efficient driving training
[fill in the number of drivers that get this training and the tool calculates the %]

1-20%	(10)
21-40%	(20)
41-60%	(30)
61-80%	(40)
81-100%	(50)
3. Who performs the training? Is it a certified trainer?
4. How often is the training carried out?

CD3.2. Speed Restrictions

Explanation

Optimised speed can lead to reduced fuel consumption and thereby lower CO2 emissions.

At least 90% of the fleet need to be enclosed in the speed restrictions management to cover this question.

Definitions

"Speed restriction management": refers to a optimized speed defined by your company. The optimized speed should always be below local legal restriction.

"System supported follow-up": a computer based system which records and allows analysis of the speed of a vehicle.

"System supported follow-up with real-time update": a computer based system which can monitor the current speed of a vehicle and is connected to the main office, so that the necessary feedback can be given to the driver, if any driver exceeds maximum speed limit.

Evidences

- Copy of Speed Restriction Policy
- Technical specification of the speed limiter(s) used
- Copy of a follow-up report

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. How do you manage the speed restrictions? Choose level of follow up:
 Communicated policy
 How is the policy communicated?

(5)

System supported follow up
What system is used?
System supported follow up with real time update
What system is used?
How is the speed monitored?

(10)

(20)

CD3.3. Idling Time

Explanation

Idling, which does not support work, adds to the fuel consumption and thereby contributes to CO2 emissions and air pollution.

The carrier shall have a written policy, regulating the behaviour of the drivers during the idling time, that is communicated to all drivers.

Follow up on the idling time shall be done on the individual driver level.

At least 90% of the fleet need to be enclosed in the Idling Time regulation to cover this question.

Definitions

"Idling": when vehicle is not moving, but the engine is still running - for example, when it is parked for loading & unloading, or during waiting periods for loading & unloading.

"Vehicle data follow-up system": a computer based system that records parameters of engine work and allows drawing reports, analysis, etc.

Evidences

- Copy of written policy, regulating Idling Time
- Screenshot of system/ copy of report that is used for following up on idling on driver level.

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Idling time management – which type of management is used?

Communicated policy

(10)

How is the policy communicated?

Vehicle data follow up

(20)

CD4. VEHICLE SPECIFICATIONS

CD4.1. Engine characteristics – Friction reduction

Explanation

By reducing the friction in the engine, it is possible to gain improvements in the engine efficiency and simultaneously save on fuel consumption. Evidence shows that fuel savings achieved are around 2% (source: ["Review of Low Carbon Technologies for Heavy Goods Vehicles", by Ricardo plc, Jun 2009](#)), when implementing engine friction reduction techniques.

There are several types of techniques that can be used to achieve engine friction reduction:

- Improvements in the piston, piston ring and cylinder liner package;
- Cylinder axis off-set, to reduce the force at the cylinder fire condition
- The use of engine oil with reduced viscosity and the introduction of oil additives.

The present chapter focuses on promoting carriers the implementation of the engine oils with reduced viscosity and the introduction of oil additives.

At least 90% of the fleet need to use low viscosity oil to cover this question.

Definitions

"Engine Friction": the friction that is caused by everything that goes into the engine and items that run off of the engine. Refers to the bearings for the crankshaft, connecting rods and camshaft(s), as well as the friction in the valve train, from the lifters, rocker arms and the valve springs.

Another issue with Engine Friction are the items connected to the engine via drive belts. These items include (but not limited to) the alternator, power steering pump, water pump, air conditioning compressor and sometimes the cooling fan.

Evidences

- Technical specification of the low viscosity oil used, to reduce the engine friction
- Technical specification of the oil additives used, to reduce the engine friction

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you use any specific engine oil with low viscosity, or any oil additives, in order to reduce the engine friction?

Yes

No

(20)
(0)

If yes, which type and brand of engine oil / oil additives do you use? (For IKEA information only!)

CD4.2. Improving Aerodynamics

Explanation

Aerodynamics is an important characteristic in trucks, in the sense that when a vehicle moves, the air exerts a force on the vehicle that resists its motion. This is called the "aerodynamic drag", and it has a significant effect on the fuel consumption of the vehicles.

The drag is affected by the shape of the vehicle, the frontal area and the speed of the vehicle.

Trucks that have aerodynamics fittings installed can get lower fuel consumption that range between 5 and 15% (source: ["Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies", by Faber Maunsell, March 2008](#)), when compared with trucks with no fittings.

Examples of aerodynamics fittings that can be installed to trucks are:

- Aerodynamics fairings (for vehicles, cabin)
- Aerodynamically shaped trailers
- Trailer spray suppressers

For more details on the aerodynamics fittings that can be installed in the trucks, check the following publications: "Quick Guide to Truck Aerodynamics" and "Aerodynamics for Efficient Road Freight Operations", which can be downloaded for free under:

Definitions

"Aerodynamics": the study of the forces that act on objects moving through the air.

Evidences

- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that have Aerodynamics Fittings installed
- Description / specification of the aerodynamics fittings used in the trucks

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

3. Total number of trucks involved in IKEA business
2. Number of above trucks which are equipped with aerodynamics fittings (either coming from factory, or fittings that have been installed later on)
[fill in the number of trucks equipped with aerodynamics fittings and the tool calculates the %]

1-20%	(5)
21-40%	(10)
41-60%	(15)
61-80%	(20)
81-100%	(25)
4. Description of the aerodynamics fittings used

CD4.3. Tyres – Low Rolling Resistance

Explanation

This question refers to the tractor only and not the trailer.

Low rolling resistance tyres reduce fuel consumption substantially, when compared to regular tyres, resulting in a quick return on investment, and lower CO2 emissions.

For more details on the use of LRR tyres and related case study, check the publication "Save Fuel with Lower Rolling Resistance Tyres", which can be downloaded for free under:

<http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/equipment-and-systems>

Definitions

"Low Rolling Resistance Tyres": energy saving tyres. EU tyres' labelling: fuel consumption classification A-B and C

Low rolling resistance tyres reduce fuel consumption compared to regular tyres.

Super Single tyres / single Wide tyres are also considered to be low rolling resistance.

Evidences

- List of all trucks that are used for IKEA transports
- List of all trucks that are used for IKEA transports that have Low Rolling Resistance Tyres
- Specification / fact sheet / EU label of the tyres used
- Supply agreement / invoice with tyre supplier(s)

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business
2. Number of above trucks (tractor part ONLY) which use low rolling resistance tyres
[fill in the number of trucks equipped with LRR tyres and the tool calculates the %]

1-20%	(5)
21-40%	(10)
41-60%	(15)
61-80%	(20)
81-100%	(25)
3. Full name of tyres (brand, type) and type of tyres used (for example EN XL-259) (For IKEA information only!)

CD4.4. Tyres - Pressure Monitoring System

Explanation

Having the correct tyre pressure is an easy and effective way to reduce fuel consumption. Monitoring can be performed by anyone (the driver, the maintenance workshop, and external company) and shall be done either manually (with a pressure gauge) or be system supported (on board technology). Monitoring shall be done at least once per month.

At least 90% of the fleet need to be enclosed in the pressure monitoring system to cover this question.

Evidences

- List of all trucks that are used for IKEA transports
- Copy of testing routine (or proof of onboard system)
- Example of reports if available

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a tyre pressure monitoring system or routines, to verify pressure at least once per month?
Yes
No
2. Describe the routine. How is it documented?

(30)
(0)

CD4.5. Alternative powertrains

Explanation

Two main types of alternative powertrains: Electric Vehicles and Hybrid Vehicles, which potentially reduce exhaust CO₂ emission above 50% ("Delivering Tomorrow, Customer Needs in 2020 and Beyond A Global Delphi Study" published by Deutsche Post AG in June 2009 http://www.dpdhl.com/content/dam/logistik_populaer/trends/delphi-studie_english.pdf). As side effect, it also reduces the noise level in inner-cities. However, the high initial investment, availability of recharging infrastructure and the capacity of truck payload are the issues. There are several global commercial Electric Vehicle manufactures already in the market, which provide real models (not prototypes).

Electric vehicles powered by electricity, not only benefits from zero tail-pipe CO₂ emission but also no local NO_x or particles emission. However, the CO₂ reduction of electric vehicles can be argues that is constrained by the electricity production which relies on fossil fuels. If electric vehicles were supplied with 100% green energy, it would generate no emission.

Hybrid vehicles combine a conventional engine with a high-voltage electric motor supporting the performance of the combustion engine. In logistics, hybrid powertrain systems are particularly suitable for smaller truck (7, 5-12 tons) in urban traffic with high stop density and low average daily mileage. The expected energy efficiency from hybrid vehicle gains 15%-25%, for plug-in hybrid vehicle even reaches 50%.

Definitions

"Electric vehicles": Powertrain 100% powered by electricity.

"Hybrid vehicles": Vehicles combine a conventional combustion engine and an electric motor.

Different mechanisms of hybrid vehicles are:

- Start & stop: during idle or low output, the internal combustion engine is turned off; the electric motor can be used as the sole source of propulsion at low speeds
- Regeneration braking system: it recovers the kinetic energy that is usually dissipated as heat when braking; the recaptured energy recharges the energy storage system
- Electric traction power: the internal combustion engine is reduced in size and power and can run at the optimal engine operation point which decreases inefficiencies from under-utilization.
- Plug-in: it can be charged from the grid and, as long as the electricity storage lasts, there is no need to revert to fuel.

Evidences

- List of all trucks that are used for IKEA transports
- List of Trucks used for IKEA using alternative Techniques
- Technical specification of the Alternative techniques used

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business
2. How many electric vehicles/ hybrid vehicles involved in IKEA business?
[fill in the number of electric / hybrid vehicles and the tool calculates the %]

1-20%	(20)
21-40%	(40)
41-60%	(60)
61-80%	(80)
81-100%	(100)
3. What is the model of the electric vehicles/ hybrid vehicles? (For IKEA information only!)

CD5. VEHICLE MAINTENANCE

Explanation

With vehicle maintenance, this section means “preventive maintenance”. It involves that the carrier makes sure that trucks are always kept in good shape, in order to help minimize the chance of defects occurring, and to help find ways to improve the efficiency of the trucks.

Examples of “preventive maintenance” are: daily truck checks, systematic and documented safety instructions done regularly (and with a pre-defined frequency), tyre management, laser wheel alignment, etc.

Just to give an example on benefits of have preventive maintenance, there are case studies that prove that the using the laser wheel alignment on a regular basis brings improvements in the fuel consumption of 2 to 5% (source: [“Reducing Greenhouse Gas Emissions from Heavy-Duty Vehicles – The Role of the European Commission – Interim Report 1 – Initial Review of Measures and Policies”, by Faber Maunsell, March 2008](#)).

For more details on the use of LRR tyres and related case study, check the publication “Preventative Maintenance for Efficient Road Freight Operations”, which can be downloaded for free under: <http://webarchive.nationalarchives.gov.uk/20090210151410/http://freightbestpractice.org.uk/operational-efficiency>

At least 90% of the fleet need to be enclosed in the preventive maintenance system to cover this question.

Evidences

- Records of the activities that are done regularly within the “preventive maintenance” approach to the trucks.

Score

The score assigned per carrier is weighted, based on the carriers’ IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring. The “Score Summary” worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Do you have a preventive vehicle maintenance system (PVMS), that you apply to the trucks of your fleet in a regular basis, as per manufacturer’s specifications?

Yes	(30)
No	(0)
2. Describe the activities that you include in the preventive vehicle maintenance system, and how often you perform each type of activities.

CD6. EMISSIONS EQUIVALENT

Explanation

This question refers to the tractor only and not the trailer.

Referring to Transport section 4.9 Vehicle emission requirements, which is part of IWAY start-up requirements. For trucks gross weight above 3.5 tonnes need to fulfil maximum 10 year old national emission standards for engines. In countries where no emission classification exists, truck age is to be applied instead of emission standards. By using younger fleet where stricter emission standards apply, it can be secured that the emissions like CO, NOx and PM are reduced greatly. CO, NOx and PM have negative impact on human

health. The purpose of this question is to give scores to the trucks exceeding the Transport section 4.9 Vehicle emission requirements in national emission standard or truck age requirement.

For details on the main national emission standards check: <http://www.dieselnit.com/standards/>

Definitions

"Emission standards": Emission standards are requirements that set specific limits to the amount of pollutants that can be released into the environment. Emission performance standards have been used to dictate limits for conventional pollutants such as oxides of nitrogen and oxides of sulphur (CO, NOx, PM and SOx)

Evidences

- List of national emission standards
- List of all trucks that are used for IKEA transports with year of production and /or emission standard

Score

The score assigned per carrier is weighted, based on the carriers' IKEA Volume. Both the systems of the carrier and of the subcontractors are evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows both the total score of the carrier for this specific chapter, and the maximum score available.

Questions

1. Total number of trucks involved in IKEA business.
2. Are there emission standards for your country/Area?*
3. *If yes - Number of trucks up to 3.5T fulfilling the 5 year old (or more recent) national emissions standard + Number of trucks above 3.5T fulfilling the 10 year old (or more recent) national emissions standard
4. *If yes - Number of trucks up to 3.5T fulfilling a national emissions standard stricter than that valid 5 years ago + Number of trucks above 3.5T fulfilling a national emissions standard stricter than that valid 10 years ago

[fill in the number of trucks and the tool calculates the %]

1-20%	(10)
21-40%	(20)
41-60%	(30)
61-80%	(40)
81-100%	(50)

5. *If there are no applicable emission standards - fill in the number of trucks by age

a. For Trucks more than 3,5 Tonnes:

Trucks between 5-9 years

Trucks 4 years old

Trucks 3 years old

Trucks 2 years old

Trucks 1 year old

Max points 10

Max points 20

Max points 30

Max points 40

Max points 50

b. For Trucks below or equal to 3,5 Tonnes:

Trucks 4 years old

Trucks 3 years old

Trucks 2 years old

Trucks 1 year old

Max points 20

Max points 30

Max points 40

Max points 50

The scoring is based on trucks age and is calculated as follow: Scoring = Number of Trucks ÷ Total number of Trucks × Max points possible

W1 ENERGY CONSERVATION

W1.1 Operation energy optimization

Explanation

Operation energy optimization refers to efforts made to reduce energy consumption during operation. This can be achieved through reducing unnecessary energy use during non-operating and increasing efficient energy use.

Definition

Operation energy optimization includes but not necessarily limited to the use of the heating and cooling system, office equipments, warehousing facilities for loading, unloading or packaging processes. Control of lighting will be mentioned in the following chapter and thus not covered by this chapter.

Evidences

- Instruction or routine to control energy use in operating and non-operating hours
- Records of training or communication of such instruction or routine
- Specification of auto-programmed energy controlling system
- Periodical reports for energy consumption and efficiency

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub's IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Do you have a process or mechanism to turn off the power or switch to energy saving mode in non-operating areas/hours?

Yes

No

(0)

2. If yes, please describe what operation is covered by the process or mechanism.

3. Please choose the controlling system:

the plan or mechanism manually controlled in line with company instruction or routine (20)
describe the instruction or routine.

the plan or mechanism controlled automatically by programmed energy controlling system (30)

describe the system

4. Do you have a periodical reporting routine to monitor the energy consumption and efficiency?

Yes

No

(10)

(0)

W1.2 Environmental Purchasing Consideration

Explanation

Environmental purchasing is the inclusion of environmental factors in decisions on the purchase of products and/or services. It is also called “green”, “sustainable” or “environmentally preferable” purchasing. The aim of considering environmental factors is to buy products or services that have less impact on the environment and human health than otherwise comparable products or services.

Evidences

- Policy or guideline of Environmental Purchasing Consideration
- Records of training or communication of such policy or guideline
- Example(s) of product/facility/equipment/service covered by the policy or guideline

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub’s IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring. The “Score Summary” worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Do you have a policy or guideline for environmental purchase consideration?

Yes

(10)

please describe the policy or guideline

No

(0)

W1.3 Renewable Energy

Explanation

Fossil fuels are non-renewable resources because they take millions of years to form, and reserves are being depleted much faster than new ones are being made. The production and use of fossil fuels also raise environmental concerns. IKEA cares people and the environment around people. Utilizing renewable energy means less dependent from traditional energy coming from fossil fuel.

Definition

Energy is considered renewable, if it comes from any of the following sources: hydro, solar, wind, geothermal, hydropower, biomass, the renewable fraction of municipal waste, ocean, tidal and wave resources, and bio-fuels. (Source: *International Energy Agency's (IEA)*)

When the electricity used is taken from the national grid, a certain % is produced from renewable sources (see for instance this table for EU Countries:

http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_31&plugin=1)

Evidences

- Summary/statistics of total energy consumption of the warehouse/hub
- Invoice of energy bill
- Specification of renewable energy generator onsite
- Specification of renewable energy purchased and the invoice

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub's IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Do you have renewable energy generated/purchased/for onsite use?
Yes
No (0)
2. If Yes, Please specify the % of the energy consumed that comes from renewable energy source(s)
1%-20% (20)
21%-40% (40)
41%-60% (60)
61%-80% (80)
81%-100% (100)

W2 LIGHTING

W2.1 Lighting optimization

Explanation

Lighting optimization is a way to optimize the use of natural or artificial light sources by evaluating the space and necessary lighting need. It can be achieved by using natural light source, removing unnecessary artificial lighting to balance the level of illumination to common need, or adjust the control panel or circuit to avoid unnecessary waste of lighting. Fiber optics, solar lamps or roof sunlight plane are all considered good examples of utilizing natural light.

Definitions

A fiber optical (or optical fiber) is a flexible, transparent fiber made of glass (silica) or plastic, slightly thicker than a human hair. It functions as a waveguide, or "light pipe", to transmit light between the two ends of the fiber.

A solar lamp is a portable light fixture composed of a LED lamp, a photovoltaic solar panel, and a rechargeable battery.

Roof sunlight plane refers to transparent plane mounted on the building roof that allows sunlight into the building for direct illumination.

Evidences

- Copy of the lighting scheme for warehouse/hub and office
- Copy of local standard of minimum lux level
- Records of warehouse/hub and office lux test result
- Specification of any equipment utilizing sunlight

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub's IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Do you utilize natural lighting source at operation and non-operation areas?
Yes
No (0)
2. If yes, what is the % of the lighting saving from using natural light source?
1%-20% (20)
21%-40% (40)
41%-60% (60)
61%-80% (80)
81%-100% (100)
3. Do you have a plan or routine to switch off the lighting at non-operating hours by zone, except emergency lighting?
Yes (10)
 please describe the plan or routine
No (0)
4. Do you use separate light switches/circuits for different operation or office area?
Yes (20)
No (0)
5. Do you have a routine to evaluate and challenge where the lux levels exceed local standards so that all unnecessary lights can be removed or disabled.
Yes (30)
 please describe the routine
No (0)

W2. 2 Energy saving lamps

Explanation

Compared to general-service incandescent lamps giving the same amount of visible light, energy saving lamps like CFL, HID or LED, together with auxiliary equipments like electrical ballast, reflectors and shades, use far less electric power, and last much longer for lifespan. For example, CFLs use one-fifth to one-third the electric power, and last eight to fifteen times longer.

Definitions

Electrical ballast is a device intended to limit the amount of current in an electric circuit. A familiar and widely used example is the inductive ballast used in fluorescent lamps, to limit the current through the tube, which would otherwise rise to destructive levels due to the tube's negative resistance characteristic.

A compact fluorescent lamp (CFL), also called compact fluorescent light, energy-saving light, and compact fluorescent tube, is a fluorescent lamp designed to replace an incandescent lamp; The lamps use a tube which is curved or folded to fit into the space of an incandescent bulb, and a compact electronic ballast in the base of the lamp.

A light-emitting diode (LED) is a semiconductor light source. LEDs are used as indicator lamps in many devices and are increasingly used for other lighting. Modern LED are available in different colour spectrum across the visible, ultraviolet, and infrared wavelengths, with very high brightness.

High-intensity discharge lamps (HID lamps) are a type of electrical gas-discharge lamp which produces light by means of an electric arc between tungsten electrodes housed inside a translucent or transparent fused quartz or fused alumina arc tube. This tube is filled with both gas and metal salts. The gas facilitates the arc's initial strike. Once the arc is started, it heats and evaporates the metal salts forming a plasma, which greatly increases the intensity of light produced by the arc and reduces its power consumption. High-intensity discharge lamps are a type of arc lamp.

Evidences

- Copy of invoice of the energy saving lamps used in warehouse/hub
- Copy of specification of the energy saving lamps used in warehouse/hub or office

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub's IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring. The "Score Summary" worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Have you upgraded operations lighting to use modern energy saving technology including CFL bulbs, ballasts, reflectors and shades, LED or HID lamps?
Yes (0)
No (0)
2. If yes - please specify the % of the area where such energy saving lamps are used.
1%-20% (20)
21%-40% (40)
41%-60% (60)
61%-80% (80)
81%-100% (100)
3. Please describe name and brand of the energy saving lamps used in these areas. (For IKEA information only)

W2. 3 Advanced Lighting-control technology

Explanation

A major advantage of a lighting control system over conventional individual switching is the ability to control any light, group of lights, or all lights in a building with programmable controller or user interface device. They are often part of sustainable architecture and lighting design for integrated green building energy conservation programs. Technologies like motion/photo sensor can be good examples of such advance lighting-control technology.

Definition

Lighting control systems, with an embedded processor or industrial computer device, usually include one or more portable or mounted keypad or touch screen console interfaces, and can include mobile phone operation. These control interfaces allow users the ability to remotely toggle (on-off) power to individual or groups of lights (and ceiling fans and other devices), operate dimmers, and pre-program space lighting levels. Light control systems can also include various sensors (motion, photo or infrared triggered) and programmed auto-controller adapted to different working environments to increase the energy efficiency and accuracy.

Evidences

- Copy of the lighting scheme for warehouse/hub and office
- Copy of the manual/specification of the lighting control system

Score

The score assigned per warehouse/hub is weighted, based on the warehouse/hub's IKEA Volume. Only the practice of the warehouse/hub is evaluated and taken into consideration for the scoring.

The "Score Summary" worksheet shows the total score of the warehouse/hub for this specific chapter, and the maximum score available

Questions

1. Do you have the lighting control system to manage in operation and non-operation areas?
Yes (0)
No (0)
2. If yes – is the lighting control system equipped with photo/motion/infrared sensors or of any other kind?
3. If yes - please specify the % of the area where such lighting control system are used.
1%-20% (20)
21%-40% (40)
41%-60% (60)
61%-80% (80)
81%-100% (100)
4. Please describe the lighting control system and specify the name and brand of the system. (For IKEA information only)

Glossary

Term	Definition
SUPPLIERS / SUPPLIER RELATIONSHIPS	
TSP	Transport and Service Provider - Contracted partner providing transport and/or logistic services to IKEA
Sub contractor	Any of external companies engaged by the TSP.
Freight Forwarder	A Freight Forwarder (FF) is a non-asset based company, who acts as an 'agent', sourcing transportation, from asset based companies on behalf of a company.
Fleet Owner	An asset based supplier, in which the assets can be trucks, vessels and/or trains.
Single-Driver / one-man Company	A single driver, who is registered as a company and owns, rents or leases its own truck.
FAO	Frame Agreement Owner, Transport Company signing Frame Agreement with IKEA.
SAO	Sub Agreement Owner, Transport Company or any of its affiliated companies providing services in accordance with valid sub-agreement.
IKEA TRANSPORT & SERVICE CATEGORIES AND FUNCTIONS	
Land (L)	Category Land is responsible for all Land shipments, (Rail, Motor, Combined, Barge and Short Sea and pre/on-Carriage carried out by ocean suppliers), between Suppliers and DC, Stores, and also responsible for Consolidation Points (CP).
Category Service Business (CSB)	Category Service Business is responsible for Customer Delivery, Assembly and Installation
BD	Business Developer
TSuD	Transport Sustainability Developer
TAM	Transport Area Manager
BDM	Business Developer Manager
CSB Ops Manager	Category Service Business Operation Manager
CSB OpsFR	Category Service Business Operation Field Responsible
MODES / TYPES OF TRANSPORT	
Motor (M)	Shipments carried out on the road by truck
Rail (R)	Shipments carried out by Train
Combined / Intermodal / Multi-modal (C)	Shipments carried out through a combination of transport modes. Examples are: Motor and Rail; Motor and Short Sea; Motor and Barge.
Barge (B)	Shipments carried out by barge on inland waterways
Ocean / Short Sea (O)	Shipments on small ocean vessels between ports located relatively close together, intra-continental.
Other	
CP	Consolidation Point, warehouse where goods are consolidated
LSC/hub	Local Service Centre - warehouse where goods are stored prior to to be delivered to Customer's home
HCV/HGV	Heavy Commercial/Goods Vehicles; trucks heavier than 3.5 Tons
LCV/LGV	Light Commercial/Goods Vehicles; trucks up to 3.5 Tons
pre / on carriage	Motor transport performed prior (e.g. from Supplier to the port) / after the ocean lane (e.g from port to IKEA Warehouse)
Trunk line	Transport flow from IKEA warehouse (CDC) to LSC
Last mile / Final leg	Transport flow from IKEA LSC to customer home