

The Resource Module contains three forms:

1. Employees form (R-10)
2. Maintenance Performance form (R-20)
3. Energy Consumption form (R-30).

Employees form (R-10)

The Employees form (R-10) collects data on the number of transit agency employees (person count) and their total work hours. Data are reported by mode for directly operated (DO) service only. The employee data are reported for operating labor (which is reported on the Operating Expenses form (F-30) by function) and for total capital labor.

Maintenance Performance form (R-20)

The Maintenance Performance form (R-20) collects data on revenue vehicle system failures and hours spent on inspection and maintenance by the transit agency's service personnel. Data are reported on one form for all modes for directly operated (DO) service only.

Energy Consumption form (R-30)

The Energy Consumption form (R-30) collects data on revenue vehicle fuel consumption. There are two forms tailored to report fuel consumption for rail and non-rail modes. Data are reported by mode for directly operated (DO) service only.

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Form Name: Employees (R-10)			Mode: Service: DO		Close Form
Line	a	b	c	d	
	Employee Work Hours		Actual Person Count		
	Full Time Employees	Part Time Employees	Full Time Employees	Part Time Employees	
01	Vehicle operations (010)				
02	Vehicle maintenance (041)				
03	Non-vehicle maintenance (042)				
04	General administration (160)				
05	Total Operating Labor				
06	Total Capital Labor				
07	Total Labor				

Employees form (R-10)

Overview

The Employees form (R-10) collects data on the number of transit agency employees (person count) and their total work hours by labor category.

Reporting Requirements and Thresholds

This form is required for [directly operated](#) (DO) service only. Complete one form for each directly operated (DO) mode.

What Has Changed from Prior Year

There are no changes for the 2007 report year.

Approach

The data on this form pertain only to transit agency employees that work on directly operated (DO) modes. Two data items are reported — hours worked by employees and the number of employees (person count). The data items are reported by labor classification — [operating](#) and [capital](#) — and type of employee — full time and part time.

In order to complete the form it is necessary to understand:

- Who are employees of the transit agency
- How should the employees be categorized
- How to count employee work hours and employees.

Employees

The basic guideline for determining if someone is an [employee](#) is if his / her salary cost is included in expense object class (501) labor on the Operating Expenses form (F-30). Typically this means that the transit agency writes the payroll checks for the employee and provides an Internal Revenue Service Form W-2: Wage and Tax Statement for the employee.

Transit agencies may have two different types of employees — full time and part time employees. The NTD requires employee data to be categorized and reported by full time and part time employees.

[Full time employees](#) usually have a minimum number of hours set by local laws, such as at least 30 hours per week or 1,000 hours per year. Full time employees also usually receive a full benefits package.

[Part time employees](#) work less than the minimum number of hours required for full time employees, and usually receive no benefits or sometimes prorated benefits. Often, part time employees are paid at a lower pay rate than full time employees.

Full time employees working part of their time in a [function](#) or [mode](#) are not part time employees.

For example, a full time mechanic may repair bus (MB) and demand response (DR) vehicles and should be considered as a full time employee on both the bus (MB) and demand response (DR) Employees forms (R-10).

Sometimes, transit agencies also classify employees as either permanent or temporary. These classifications should not be considered when reporting data for the Employees form (R-10) since both types of employees can be either full time or part time.

[Permanent employees](#) normally have job security rights and benefits, either full or prorated. Permanent employees may be either full or part time employees.

[Temporary employees](#) work for only a specified period of time until a work task is completed. Temporary employees usually do not have any job security rights and receive no benefits or sometimes prorated benefits. Temporary employees may be either full or part time employees.

Persons employed through a temporary employment agency are not temporary employees of the transit agency. This is because their salary costs are not included in expense object class (501) labor, but instead in expense object class (503) services on the Operating Expenses form (F-30). Furthermore, the temporary employment agency, not the transit agency, writes payroll checks for the employees and provides the Internal Revenue Service Forms W-2: Wage and Tax Statement for the employees.

Exhibit 22 — Guidelines for Determining Whether an Individual is an Employee

The following individuals are employees under NTD reporting:

- An individual who has worked his / her scheduled assignment
- An individual on extended sick leave
- An individual temporarily disabled and assigned to another position
- An individual who has left the transit agency through separation or retirement and whose position has not been refilled but continues to receive a paycheck from the transit agency.
- An individual on a paid leave of absence
- An individual on an unpaid leave of absence of a prolonged duration, as long as he is retained on the benefits program and retains his job security rights.

The following individuals are not employees under NTD reporting:

- An individual working temporarily on a service contract (expense object class (503) services)
- An individual of a company who has a contract with the transit agency to perform specific services (e.g., management services, clerical)
- An individual under contract to another company but working on the transit agency's premises (e.g., temporary clerical services)
- An individual of an agency who has a contract to perform specific services to the transit agency (e.g., data collection contractor staff).

Employee Work Hours and Counts

[Employee work hours](#) and the [actual person count](#) of employees are collected for different time periods. The employee work hours cover all work performed during the report year. Employee work hours are determined from payroll records. The actual person count of employees is determined at the end of the report year.

Employee work hours are the total hours worked by transit agency employees during the report year. Employees may have been hired during the year, or may have left before the end of the report year. Regardless of when employees begin or leave their jobs, the work hours performed during the reporting period are reported on this form.

Work hours are not equivalent to and typically are less than total hours paid to transit employees. Work hours might be considered “duty hours” — hours during which employees are performing work for the transit agency. Work hours do not include hours related to fringe benefits, such as holiday time and sick leave.

A full time employee is paid approximately 2,080 total hours in a report year (40 hours per week x 52 weeks / year). Work hours may be 1,700 to 1,800 of the 2,080 hours with the balance of the hours being paid for fringe benefits such as holiday and sick leave. It is highly unusual for full time employees to have average paid work hours that are equal to or greater than 2,080 hours.

The actual person count of employees is determined at the end of the report year. Normally, it is the number of employees who are working at the end of the fiscal year, but there may be unique situations such as employees on a paid leave of absence or employees who have left the agency through retirement or separation. See the guidelines above for who should or should not be counted as an employee.

Since employee work hours and the actual person count of employees are collected for different time periods, the relationships between the two statistics must be interpreted with care. High numbers of employees working at the end of the fiscal year relative to the average staffing levels over the fiscal year may suggest low hours worked per employee. Conversely, low numbers of employees at the end of the fiscal year may suggest high hours worked per employee. In most cases, the average number of work hours per full time employee is less than 2,080 hours, and typically is in the range of 1,700 to 1,800 work hours.

Relationship of Employees to Other NTD Forms

This form has key reporting relationships with the following two NTD reporting forms:

1. **Maintenance Performance form (R-20)** – The work hours reported for the vehicle maintenance labor classification on the Employees form (R-10) should be greater than the total labor hours for inspection and maintenance reported on the Maintenance Performance form (R-20). This relationship is true because the labor hours reported on the Maintenance Performance form (R-20) do not include work hours for servicing [revenue vehicles](#), accident repairs of revenue vehicles, vandalism repairs of revenue vehicles, or maintenance related to non-revenue [\(service\) vehicles](#) that are reported on the Employees form (R-10).
2. **Operating Expenses form (F-30)** – The work hours reported by operating labor classification on the Employees form (R-10) should be consistent with the labor expenses reported by function on the Operating Expenses form (F-30). If

work hours are reported in a specific operating labor classification (e.g., vehicle maintenance), then there should be corresponding labor expenses reported for the same function in object class (501) labor on the Operating Expenses form (F-30). Conversely, if labor expenses are reported in a specific function (e.g., non-vehicle maintenance) object class (501) labor on the Operating Expenses form (F-30), then there should be corresponding work hours reported for the same operating labor classification on the Employees form (R-10).

Detailed Instructions

Report employee work hours and counts by labor classification: [operating labor](#) and [capital labor](#).

Labor Classification

Operating Labor

Operating labor are the personnel necessary to carry out the day-to-day requirements for providing transit service. Operating labor is reported by the four [functions](#) on the Operating Expenses form (F-30) — [vehicle operations](#) (010), [vehicle maintenance](#) (041), [non-vehicle maintenance](#) (042), and [general administration](#) (160).

The [Uniform System of Accounts](#) (USOA) has defined the work activities performed by employees in each function. The following exhibit summarizes the Uniform System of Accounts (USOA) work activities for operating labor by function.

Exhibit 23 — Employee Operating Labor Classifications — Chapter 6 of Uniform System of Accounts

Vehicle Operations Labor (line 01)

010 Vehicle Operations

010 — Transportation administration and support

011 — Transportation administration and support. Transportation managers, superintendents, port captains, terminal managers, supervisors and others engaged in administering transportation service at the system division and station levels; secretaries, stenographers and clerks supporting supervision of transportation activities; driver training instructors, students and service inspectors.

012 — Revenue vehicle movement control. System, division, and station managers and supervisors engaged in controlling dispatch, movement and return of revenue vehicles; secretaries and clerks supporting the supervision of vehicle movement control; road supervisors, dispatchers, stop and zone representatives, starters, timekeepers and employees engaged in furnishing supplies to vehicle operators; radio and telephone communication operators monitoring and controlling vehicle movement at communication centers.

021 — Scheduling of transportation operations. Traffic managers, superintendents, department heads and supervisors engaged in supervising the preparation of schedules for transportation operations; secretaries, stenographers and clerk-typists supporting the supervision of scheduling activities; schedule analysts, makers, checkers, statistical clerks; design, layout and reproduction people engaged in producing finished schedules.

151 — Ticketing and fare collection. Managers, treasurers, cashiers, department heads and supervisors engaged in supervising ticketing and fare collection activities; secretaries and clerk-typists supporting supervision; agents distributing, selling and collecting fares; printers and other machine operators producing tickets, tokens; people controlling and servicing sales outlets; vault pullers, sorters, money counters and cash clerks, security guards for vehicles and at collection and counting area; vehicle drivers transporting money to counting facilities and banks; accounting and control clerks auditing and monitoring fare sales, collection and counting activities; fare registration reconciliation clerks.

161 — System security. Security managers and supervisors engaged in supervising system-wide security; secretaries and clerks supporting security supervision; police officers, special agents, patrol staff, inspectors and others engaged in providing overall security.

030 — Revenue vehicle operation. Platform and travel pay of scheduled line, unscheduled line, charter and contract service revenue vehicle operators, conductors, collectors and other operating crew members working aboard transit vehicles; pay of ferryboat deck crews (e.g., captain, chief officers, mates, pilots).

Vehicle Maintenance Labor (line 02)

041 Vehicle Maintenance

041 — Maintenance administration — vehicles. Maintenance managers, port engineers, superintendents, supervisors and non-working lead workers engaged in directing and supervising maintenance and repairs to vehicles; secretaries and clerk-typists supporting the administration of maintenance activities; garage and shop clerks, timekeepers and other clerical people engaged in scheduling and recording vehicle maintenance activities, vehicle maintenance training instructors and students; engineers and other technicians engaged in vehicle maintenance activities.

051 — Servicing revenue vehicles. Service managers, supervisors and lead workers engaged in overseeing the preparation of revenue vehicles for service (excluding repair work); cleaners, washers, fuelers, oilers and hostlers; secretaries and clerks supporting vehicle servicing activities.

061 — Inspection and maintenance of revenue vehicles. Working supervisors, lead workers, inspectors, service personnel, apprentices, greasers, mechanics, welders, major component repair staff, electricians, bench hands, machinists, coil winders,

Exhibit 23 — Employee Operating Labor Classifications — Chapter 6 of Uniform System of Accounts

sheet metal workers, sanders, painters, body workers, upholsterers, glass installers, carpenters, blacksmiths and others engaged in repair, maintenance and inspection activities for revenue vehicles.

062 — Accident repairs of revenue vehicles. All direct and indirect maintenance and administrative labor actually expended on or allocated to the repair of accident damage on revenue vehicles.

071 — Vandalism repairs of revenue vehicles. All direct and indirect maintenance and administrative labor actually expended on or allocated to the repair of vandalism damage on revenue vehicles.

081 — Servicing and fuel of service vehicles. Service managers, supervisors, and lead workers engaged in overseeing the preparation of service vehicles for operation (excluding repair work); cleaners, washers, fuelers, oilers and hostlers; secretaries and clerks supporting servicing activities for service vehicles.

091 — Inspection and maintenance of service vehicles. Working supervisors, lead workers, inspectors, service staff, greasers, mechanics, apprentices, welders, major component repair staff, electricians, bench hands, machinists, coil winders, sheet metal workers, sanders, painters, body workers, upholsters, glass installers, carpenters, blacksmiths, and others engaged in garage and shop repair and maintenance activities for service vehicles.

Non-Vehicle Maintenance Labor (line 03)

042 Non-Vehicle Maintenance

042 — Maintenance administration — facilities (non-vehicles). Maintenance managers, superintendents, supervisors and non-working lead workers engaged in directing and supervising maintenance and repairs to transit way and structures and to other buildings, grounds and equipment; secretaries and clerk typists supporting the administration of maintenance activities; clerks, timekeepers and other clerical people engaged in scheduling and recording maintenance activities; maintenance training instructors and students; engineers and other technicians engaged in transit way and structures and in other buildings, grounds and equipment maintenance activities.

101 — Maintenance of vehicle movement control systems. Working supervisors, lead workers, electronics technicians, radio and telephone repair staff and others engaged in the repair and maintenance of vehicle movement control equipment.

111 — Maintenance of fare collection and counting equipment. Working supervisors, lead workers, mechanics, cleaners, service staff, and others engaged in the repair and maintenance of fare collection and counting equipment.

121 — Maintenance of roadway and track. Working supervisors, lead workers, inspectors, repair crewmembers, and others engaged in the repair and maintenance of roadway and track (e.g., sanding, removing snow, sweeping, scraping).

122 — Maintenance of structure, tunnels and subways. Working supervisors, lead workers, inspectors, repair crew members, carpenters, custodians, painters, and others engaged in the repair and maintenance of transit way structures, tunnels, bridges and subways.

123 — Maintenance of passenger stations. Working supervisors, lead workers, inspectors, mechanics, service staff, carpenters, plumbers, electricians, custodians, painters, janitors, utility workers, groundskeepers, and others engaged in the repair and maintenance of passenger station buildings, grounds and equipment.

124 — Maintenance of operating station buildings, grounds and equipment. Working supervisors, lead workers, inspectors, mechanics, service staff, carpenters, plumbers, electricians, custodians, painters, janitors, utility workers, groundskeepers and others engaged in the repair and maintenance of operation station buildings, grounds and equipment.

125 — Maintenance of garage and shop buildings, grounds and equipment. Working supervisors, lead workers, inspectors, mechanics, service staff, carpenters, plumbers, electricians, custodians, painters, janitors, utility workers, groundskeepers, and others engaged in the repair and maintenance of garage and shop buildings, grounds and equipment.

126 — Maintenance of communication system. Working supervisors, lead workers, electricians, service staff, cleaners, electronics technicians, mechanics, utility workers, inspectors, and others engaged in the repair and maintenance of general communication equipment.

127 — Maintenance of general administration buildings, grounds and equipment. Working supervisors, lead workers, inspectors, mechanics, service staff, carpenters, plumbers, electricians, custodians, painters, janitors, utility workers, groundskeepers, and others engaged in the repair and maintenance of general administration buildings, grounds and equipment.

128 — Accident repairs of buildings, grounds and equipment. All direct and indirect maintenance and administrative labor actually expended on or allocated to the repair of accident damage on buildings, grounds and equipment.

131 — Vandalism repairs of buildings, grounds and equipment. All direct and indirect maintenance and administrative labor actually expended on or allocated to the repair of vandalism damage on buildings, grounds and equipment.

141 — Operation and maintenance of electric power facilities. Managers, supervisors, lead workers, operators, monitors, clerks and others directly engaged in the generation and distribution of electric power: working supervisors, lead workers, inspectors, mechanics, carpenters, plumbers, electricians, custodians, painters, janitors, utility workers, service staff, and others engaged in the repair and maintenance of electric power generation and distribution facilities.

General Administration Labor (line 04)

160 General Administration

165 — Injuries and damages. Managers, department heads and supervisors engaged in supervising injuries and damages activities; secretaries and clerks supporting administration and supervision; negotiators, lawyers, claims adjusters, investigators, special agents and photographers; statisticians and clerks accumulating and maintaining claims and accident data.

166 — Safety. Managers, directors, and department heads engaged in directing, conducting, and supervising a system safety

Exhibit 23 — Employee Operating Labor Classifications — Chapter 6 of Uniform System of Accounts

program; secretaries and clerks supporting safety activities; safety instructors, statisticians, and others engaged in implementing system safety policies and procedures.

167 — Personnel administration. Managers, directors, supervisors, and department heads engaged in administering and supervising personnel activities; secretaries and clerk typists supporting personnel administration; recruiters, interviewers, testers, counselors, reviewers and examiners; employee welfare representatives, analysts, technicians and clerks; medical directors, nurses and first-aid assistants; job and performance evaluation analysts, orientation and training instructors, employment history record clerks, labor relations researchers, negotiators and grievance administrators.

168 — General legal services. Managers, directors and department heads engaged in administering and supervising general legal activities; secretaries and clerks supporting administration and supervision; attorneys, regulatory specialists, researchers, legal clerks and others providing general legal services to the transit agency.

169 — General insurance. Managers, supervisors, and department heads engaged in administering and supervising a general insurance program; secretaries and clerk typists supporting general insurance administration; claims adjusters, investigators, researchers, special agents, statisticians and clerks accumulating and maintaining claims and other general insurance information.

170 — Data processing. Managers, supervisors and department heads engaged in supervising data processing activities; secretaries and clerk-typists supporting data processing supervision; operators of computers, bookkeeping and accounting machines, unit record and other data processing equipment; data entry operators and verifiers; system analysts and programmers; data processing input and output control clerks; service staff and other repair people responsible for maintaining data processing equipment.

171 — Finance and accounting. Comptroller, treasurer, supervisors, chief accountants and department heads engaged in supervising finance and accounting activities; secretaries and clerk-typists supporting finance and accounting administration; accountants, bookkeepers and accounting clerks; budget analysts, cost accountants and internal auditors; receipts and labor distribution clerks, property and other fixed assets clerks.

172 — Purchasing and stores. Managers, directors, supervisors and department heads engaged in administering and supervising purchasing and stores activities; secretaries and clerk-typists supporting purchasing and stores administration; purchasing agents, buyers and specification analysts, storekeepers, stock clerks, shipping and receiving clerks, material handlers and deliverers; price, order and inventory control clerks.

173 — General engineering. Managers, chief engineers, supervisors, and department heads engaged in directing and supervising general engineering activities; secretaries and clerk typists supporting administration of general engineering; engineers, specification analysts, researchers and drafters.

174 — Real estate management. Managers, directors and department heads engaged in managing transit real estate; secretaries and clerical staff supporting administration of real estate activities.

175 — Office management and services. Office managers, supervisors and department heads engaged in supervising office management and services activities; secretaries and clerk-typists supporting administration of office management and services; main receptionists, switchboard operators, messengers, librarians, central file clerks, and mail room workers; printing shop operators and clerks; in-house newspaper writers and publishers; cafeteria and custodial employees.

176 — General management. Directors, general manager, assistant general manager, marine superintendent and operations manager (responsible for maintenance and transportation); administrative analysts, assistants and staff, special projects manager and staff; secretaries and other clerical staff supporting general management activities.

177 — Planning. Directors, managers, supervisors and department heads engaged in directing and supervising planning activities; secretaries and clerks supporting supervision activities; transit analysts and planners; design, layout and graphics specialists.

145 — Preliminary transit system development. All direct and indirect labor actually expended on or allocated to the preliminary development of a transit agency.

162 — Customer services. Managers, department heads and supervisors engaged in supervising customer service activities; charter service managers, sales personnel and staff workers; people operating route information booths and stands; telephone information operators and clerks; employees staffing a lost and found department; people engaged in designing, producing and distributing system maps and timetables.

163 — Promotion. Marketing and advertising managers, public information directors and other supervisors and department heads engaged in directing and supervising promotion activities; secretaries and clerks supporting supervision of promotion; design and layout artists, news writers and editors, mass media and public relations representatives; printers and machine operators producing promotional material.

164 — Market research. Directors, managers, supervisors and department heads engaged in directing and supervising transit market research activities; secretaries and clerks supporting supervision activities; customer and market researchers.

Capital Labor

[Capital labor](#) is the personnel involved in the purchase of equipment (e.g., buses, shelters) and construction of facilities (e.g., garages, guideway, stations).

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Employee Work Hours and Counts

Report the number of [employee work hours](#) and [actual person counts](#) of employees, [full time](#) and [part time](#).

Employee Work Hours

Report work hours for all the hours worked by transit agency employees during the report year, even if they are not employees at the end of the report year.

Actual Person Count

Report actual person counts based on approved and filled positions at the end of the report year.

Prorate work hours and person counts among labor classifications and modes if an employee works for more than any one of the following:

- [Function](#)
- [Mode](#)
- [Type of service](#) (TOS).

Report actual person counts to one decimal place.

Report only the hours and actual person counts of employees for [directly operated](#) (DO) modes. Exclude the hours worked on behalf of [purchased transportation](#) (PT) agreements.

The example below describes how to report information for an employee working on more than one mode and type of service (TOS).

Example 27 – Work Hours and Prorated Person Hours					
Example: A transit agency has a full time employee who performs vehicle maintenance on both directly operated (DO) and purchased transportation (PT) services. How should the employee and his work hours be reported?					
	Type of Service	Full Time Employee Work Hours			
Mode					
Demand response (DR)	DO	800			
DR	PT	600			
Bus (MB)	PT	400			
	Total	1,800			
Solution: Prorate the employee using the number of hours worked.					
	Type of Service	Full Time Employee Work Hours	Calculation of Employee	Full Time Employee	
Mode					
DR	DO	800 line 02, column a	800 / 1,800	.5 line 02, column c	
DR	PT	600 not reported	600 / 1,800	.3 not reported	
MB	PT	400 not reported	400 / 1,800	.2 not reported	
Total			1,800	1.0	

Line by Line Instructions

Completing the Employees form (R-10)

- Complete one form for each [directly operated](#) (DO) mode.

Form Level Help: Click on the **Help** tab at the top of the screen for form level help. A form note can be attached to any form. Use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. Click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab.

Do not use the **Form Notes** feature to answer issues generated from this form. From the **Issues** tab use the **Add Comments** link next to the specific issue.

Saving or Closing the Form

Click on the **Save** button at the bottom of the screen to save the form. Click on the **Close** button at the bottom of the screen to close the form without saving.

Completing the Form

Labor Classifications

Operating Labor

Line 01: Vehicles Operations (010)

- Column a: Employee Work Hours for Full Time Employees. Enter the number of full time [employee work hours](#) for [vehicle operations](#), including transportation administration and support, revenue vehicle operation, ticketing and fare collection, and system security. These are all the hours worked by [full time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column b: Employee Work Hours for Part Time Employees. Enter the number of part time [employee work hours](#) for [vehicle operations](#), including transportation administration and support, revenue vehicle operation, ticketing and fare collection, and system security. These are all the hours worked by [part time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column c: Actual Person Count for Full Time Employees. Enter the [actual person count](#) of [full time employees](#) performing [vehicle operations](#), including transportation administration and support, revenue vehicle operation, ticketing and fare collection, and system security. These are all the full time personnel holding approved and filled positions at the end of the report year.
- Column d: Actual Person Count for Part Time Employees. Enter the [actual person count](#) of [part time employees](#) performing [vehicle operations](#), including transportation administration and support, revenue vehicle operation, ticketing and fare collection, and system security. These are all the part time personnel holding approved and filled positions at the end of the report year.

Line 02: Vehicle Maintenance (041)

- Column a: Employee Work Hours for Full Time Employees. Enter the number of full time [employee work hours](#) directing, supervising and / or performing inspection and [vehicle maintenance](#) activities, repairs, and servicing (cleaning, sweeping, washing, fueling, oiling) of transit vehicles ([revenue vehicles](#) and [service vehicles](#)). These are all the hours worked by [full time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column b: Employee Work Hours for Part Time Employees. Enter the number of part time [employee work hours](#) directing, supervising and / or performing inspection and [vehicle maintenance](#) activities, repairs and servicing (cleaning, sweeping, washing, fueling, oiling) of transit vehicles ([revenue vehicles](#) and [service vehicles](#)). These are all the hours worked by [part time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column c: Actual Person Count for Full Time Employees. Enter the [actual person count](#) of [full time employees](#) directing, supervising and / or performing inspection and [vehicle maintenance](#) activities, repairs and servicing (cleaning, sweeping, washing, fueling, oiling) of transit vehicles ([revenue vehicles](#) and [service vehicles](#)). These are all the full time personnel holding approved and filled positions at the end of the report year.
- Column d: Actual Person Count for Part Time Employees. Enter the [actual person count](#) of [part time employees](#) directing, supervising and / or performing inspection and [vehicle maintenance](#) activities, repairs and servicing (cleaning, sweeping, washing, fueling, oiling) of transit vehicles ([revenue vehicles](#) and [service vehicles](#)). These are all the part time personnel holding approved and filled positions at the end of the report year.

Line 03: Non-Vehicle Maintenance (042)

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- Column a: Employee Work Hours for Full Time Employees. Enter the number of full time [employee work hours](#) directing, supervising and / or performing [non-vehicle maintenance](#) of buildings, grounds, roadways and track, fare collection and counting equipment, and revenue vehicle movement control systems. These are all the hours worked by [full time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column b: Employee Work Hours for Part Time Employees. Enter the number of part time [employee work hours](#) directing, supervising and / or performing [non-vehicle maintenance](#) of buildings, grounds, roadways and track, fare collection and counting equipment, and revenue vehicle movement control systems. These are all the hours worked by [part time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column c: Actual Person Count for Full Time Employees. Enter the [actual person count](#) of [full time employees](#) directing, supervising and / or performing [non-vehicle maintenance](#) of buildings, grounds, roadways and track, fare collection and counting equipment, and revenue vehicle movement control systems. These are all the full time personnel holding approved and filled positions at the end of the report year.
- Column d: Actual Person Count for Part Time Employees. Enter the [actual person count](#) of [part time employees](#) directing, supervising and / or performing [non-vehicle maintenance](#) of buildings, grounds, roadways and track, fare collection and counting equipment, and revenue vehicle movement control systems. These are all the part time personnel holding approved and filled positions at the end of the report year.

Line 04: General Administration (160)

- Column a: Employee Work Hours for Full Time Employees. Enter the number of full time [employee work hours](#) performing executive, professional, supervisory and clerical [general administrative](#) duties including planning, legal services, data processing, finance and accounting, safety, insurance, general engineering, real estate management, and customer service, promotion and market research. These are all the hours worked by [full time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column b: Employee Work Hours for Part Time Employees. Enter the number of part time [employee work hours](#) performing executive, professional, supervisory and clerical [general administrative](#) duties including planning, legal services, data processing, finance and accounting, safety, insurance, general engineering, real estate management, and customer service, promotion and market research. These are all the hours worked by [part time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column c: Actual Person Count for Full Time Employees. Enter the [actual person count](#) of [full time employees](#) performing executive, professional, supervisory and clerical [general administrative](#) duties including planning, legal services, data processing, finance and accounting, safety, insurance, general engineering, real estate management, and customer service, promotion and market research. These are all the full time personnel holding approved and filled positions at the end of the report year.
- Column d: Actual Person Count for Part Time Employees. Enter the [actual person count](#) of [part time employees](#) performing executive, professional, supervisory and clerical [general administrative](#) duties including planning, legal services, data processing, finance and accounting, safety, insurance, general engineering, real estate management, and customer service, promotion and market research. These are all the part time personnel holding approved and filled positions at the end of the report year.

Line 05: Total Operating Labor

- Column a: Employee Work Hours for Full Time Employees. This is an **auto-calculated** field and cannot be edited, review for accuracy. The number of [full time employee work hours](#) for [vehicle operations](#), [vehicle maintenance](#), [non-vehicle maintenance](#) and [general administration](#) equal to the sum of lines 01 through 04.
- Column b: Employee Work Hours for Part Time Employees. This is an **auto-calculated** field and cannot be edited, review for accuracy. The number of [part time employees](#), [employee work hours](#) for [vehicle operations](#), [vehicle maintenance](#), [non-vehicle maintenance](#) and [general administration](#) equal to the sum of lines 01 through 04.
- Column c: Actual Person Count for Full Time Employees. This is an **auto-calculated** field and cannot be edited, review for accuracy. The [actual person count](#) of [full time employees](#) performing [vehicle operations](#), [vehicle maintenance](#), [non-vehicle maintenance](#) and [general administration](#) equal to the sum of lines 01 through 04.
- Column d: Actual Person Count for Part Time Employees. This is an **auto-calculated** field and cannot be edited, review for accuracy. The [actual person count](#) of [part time employees](#) performing [vehicle operations](#), [vehicle maintenance](#), [non-vehicle maintenance](#) and [general administration](#) equal to the sum of lines 01 through 04.

Line 06: Total Capital Labor

- Column a: Employee Work Hours for Full Time Employees. Enter the number of full time [employee work hours](#) involved in purchasing equipment (e.g., buses, shelters) and constructing facilities (e.g., garages, guideway, stations). These are all the hours worked by [full time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.
- Column b: Employee Work Hours for Part Time Employees. Enter the number of part time [employee work hours](#) involved in purchasing equipment (e.g., buses, shelters) and constructing facilities (e.g., garages, guideway, stations).

These are all the hours worked by [part time employees](#) during the report year, even if they are not [employees](#) of the transit agency at the end of the report year.

- Column c: Actual Person Count for Full Time Employees. Enter the [actual person count](#) of [full time employees](#) involved in purchasing equipment (e.g., buses, shelters) and constructing facilities (e.g., garages, guideway, stations). These are all the full time personnel holding approved and filled positions at the end of the report year.
- Column d: Actual Person Count for Part Time Employees. Enter the [actual person count](#) of [part time employees](#) involved in purchasing equipment (e.g., buses, shelters) and constructing facilities (e.g., garages, guideway, stations). These are all the part time personnel holding approved and filled positions at the end of the report year.

Line 07: Total Labor

- Column a: Employee Work Hours for Full Time Employees. The number of [full time employee work hours](#) for [operating](#) and [capital labor](#) equal to the sum of lines 05 and 06.
- Column b: Employee Work Hours for Part Time Employees. The number of [part time employee work hours](#) for [operating](#) and [capital labor](#) equal to the sum of lines 05 and 06.
- Column c: Actual Person Count for Full Time Employees. The [actual person count](#) of [full time employees](#) for [operating](#) and [capital labor](#) equal to the sum of lines 05 and 06.
- Column d: Actual Person Count for Part Time Employees. The [actual person count](#) of [part time employees](#) for [operating](#) and [capital labor](#) equal to the sum of lines 05 and 06.

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Form Name: Maintenance Performance (R-20)			Close Form
Line	a	b	c
	Mode	Mode	Mode
	Number of	Number of	Number of
	Failures	Failures	Failures
Revenue Vehicle System Failures			
01	Major mechanical system failures	<input type="text"/>	<input type="text"/>
02	Other mechanical system failures	<input type="text"/>	<input type="text"/>
03	Total Revenue Vehicle System Failures	<input type="text"/>	<input type="text"/>
04	Total Labor Hours for Inspection and Maintenance	<input type="text"/>	<input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Close"/> <input type="button" value="Print"/>			

Maintenance Performance form (R-20)

Overview

The Maintenance Performance form (R-20) collects data on revenue vehicle system failures and hours spent on inspection and maintenance performed by the transit agency's service personnel.

Reporting Requirements and Thresholds

This form is required for [directly operated](#) (DO) service only. Complete one form for all directly operated (DO) modes.

What Has Changed from Prior Year

There are no changes for the 2007 report year.

Approach

Only data for [revenue vehicles](#) are reported:

- Mechanical system failures of revenue vehicle components
- Inspection and maintenance hours performed by transit agency employees.

Revenue Vehicle System Failures

Revenue vehicle system failures are mechanical problems that affect a vehicle as follows:

- The specific vehicle does not complete its scheduled revenue trip, or
- The specific vehicle does not start its next scheduled revenue trip.

The definition of revenue vehicle system failures applies to the performance of a specific vehicle (e.g., bus equipment number 2003). A failure is counted when the specific vehicle (e.g., 2003) fails to complete its [scheduled revenue trip](#) or start its next scheduled revenue trip even when another vehicle (e.g., vehicle number 4004) is substituted and no revenue service is lost.

The failures may occur in [revenue service](#) including [layover / recovery time](#), or during [deadhead](#) (miles and hours). See the Service form (S-10) section of this manual for a detailed discussion of revenue service, layover and deadhead.

Transit agency employees (object class (501) labor) or outside personnel (object class (503) services) may repair the vehicles.

The revenue vehicle system failures are reported in two categories:

1. [Major mechanical system failures](#) are those that limit actual vehicle movement or are safety issues, and
2. [Other mechanical system failures](#).

Labor Hours for Inspection and Maintenance of Revenue Vehicles

Labor hours for [inspection and maintenance of revenue vehicles](#) are the hours by transit agency employees (object class (501.02) labor) to perform preventive maintenance, most repairs of revenue vehicles (non-accident, non-vandalism), and service calls for revenue vehicle breakdowns (road calls). These hours are charged to function 061— inspection and maintenance of revenue vehicles (Section 6 of the [Uniform System of Accounts](#) (USOA)). These hours do not cover:

- Servicing [revenue vehicles](#) (cleaning, fueling)
- Accident repairs of revenue vehicles
- Vandalism repairs of revenue vehicles, or
- Maintenance related to non-revenue (service) vehicles.

Relationship of Employees to Other NTD Forms

This form has key reporting relationships with the following form:

Employees form (R-10) – The work hours reported for the vehicle maintenance labor classification in the Employees form (R-10) should be greater than the total labor hours for inspection and maintenance reported in the Maintenance Performance form (R-20). This relationship is true because the labor hours reported in the Maintenance Performance form (R-20) do not include work hours for servicing revenue vehicles, accident repairs of revenue vehicles, vandalism repairs of revenue vehicles, or maintenance related to non-revenue (service) vehicles that are reported in the Employees form (R-10).

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Detailed Instructions

Report data by [directly operated](#) (DO) mode on one form.

Failures are classified as either a [major](#) or [other failure](#) of a part of the revenue vehicle's mechanical systems.

Report all failures that affect the completion of a [scheduled revenue trip](#) or the start of the next scheduled revenue trip, including failures during [deadheading](#) and [layover](#).

Major Mechanical System Failures

These are failures of a mechanical element of the [revenue vehicle](#) that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns. Examples of major bus failures include breakdowns of air equipment, brakes, doors, engine cooling system, steering and front axle, rear axle and suspension and torque converters.

A number of factors affect the number of major mechanical system failures incurred by a transit agency including local operating conditions, types of vehicles operated, and effectiveness of the maintenance program. However, it is expected that the same types of major mechanical failures will be reported by different agencies. The differences among agencies may be in the numbers reported, not the types of major mechanical failures.

Other Mechanical System Failures

These are failures of some other mechanical element of the revenue vehicle that, because of local agency policy, prevents the revenue vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip even though the vehicle is physically able to continue in revenue service. Examples of other bus failures include breakdowns of fareboxes, wheelchair lifts, heating, ventilation and air conditioning (HVAC) systems and other problems not included as a major mechanical systems failure.

Since other mechanical system failures are based on local policies, there will be variation in the types and therefore, the numbers reported by different transit agencies. For example, some agencies in the southern part of the country may continue to operate a bus with a heating system breakdown while agencies in the northern part of the country would replace the bus immediately.

The following example describes how to determine revenue vehicle system failures for reporting.

Example 28 — Revenue Vehicle System Failure Reporting

Example 1: The air conditioning on one of Hamlet Transit Agency's buses (MB/DO) fails while carrying passengers in revenue service. The driver determines that he is unable to repair the problem and calls for a backup because it is a hot day.

Solution: Report as other mechanical system failure (line 02, MB). Air conditioning is not considered a major system, because the bus could physically continue in revenue service without working air conditioning.

Example 2: During layover, one of Hamlet Transit Agency's buses (MB/DO) experiences an engine cooling system failure. The vehicle is towed to the garage. Passengers waiting to board during layover wait for the next trip.

Solution: Report as a major mechanical systems failure because the bus could not physically operate its next scheduled trip (line 01, MB).

Example 3: The brakes stick on one of Hamlet Transit Agency's buses (MB/DO). The driver radios for help from the mobile repair unit; the unit adjusts the brakes during the scheduled layover for the bus in time for the bus to start its next scheduled trip.

Solution: Do not report because the bus started its next scheduled trip.

Example 4: The front axle breaks on one of Hamlet Transit Agency's buses (MB/DO) on its scheduled pullout from the garage to the beginning of the bus route. The bus is towed to the garage and a replacement vehicle is sent.

Solution: Report as a major mechanical systems failure because the bus could not start its next scheduled trip (line 01, MB).

Example 5: While deadheading back to the dispatching point at the end of the day, an electrical system problem activates the wheelchair lift on one of Hamlet Transit Agency's vans (DR/DO). The lift gets stuck in the extended position and the van has to be towed to the garage.

Solution: Do not report since the van completed all of its scheduled trips for the day.

Example 6: A substation that provides power to Hamlet Transit Agency's light rail (LR/DO) experiences a temporary failure. Rail service is delayed for ten minutes. Passengers stay on-board and service resumes.

Solution: Do not report this incident. There is no mechanical failure of a light rail passenger car.

Total Labor Hours for Inspection and Maintenance of Revenue Vehicles

Report labor hours for [inspection and maintenance of revenue vehicles](#) for the transit agency's service personnel only.

These are labor expenses under object class (501.02) charged to function (061) inspection and maintenance of revenue vehicles (Section 6.2 of the [Uniform System of Accounts](#) (USOA)). The activities in function (061) include:

- Inspecting revenue vehicle components on a scheduled preventive maintenance basis (e.g., engine and transmission, fuel system, ignition system, chassis, body — exterior and interior, electrical system, lubrication system, trolleys, pantographs and third rail shoes, trucks, braking system, air conditioning system)
- Changing lubrication fluids
- Replacing minor repairable units of the above listed revenue vehicle components
- Making road calls to service revenue vehicle breakdowns
- Towing and shifting revenue vehicles to maintenance facilities
- Rebuilding and overhauling repairable components
- Performing major repairs on revenue vehicles on a scheduled or unscheduled basis (this work is generally done by the following facilities: machine shop; sheet metal shop; welding and blacksmith shop; woodworking shop), and
- Replacing major repairable units of revenue vehicles (including engines, transmissions, traction motors and air conditioners).

The total labor hours for inspection and maintenance do not equal the total work hours reported on the Employees from (R-10) for vehicle maintenance. Inspection and maintenance is only one function (061) in the total vehicle maintenance (041) category. The work hours for the following vehicle maintenance functions are excluded:

- [\(041\) Maintenance administration — vehicles](#)
- [\(051\) Servicing revenue vehicles](#)
- [\(062\) Accident repairs of revenue vehicles](#)
- [\(071\) Vandalism repairs of revenue vehicles](#)
- [\(081\) Servicing and fueling of service vehicles](#)
- [\(091\) Inspection and maintenance of service vehicles.](#)

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Line by Line Instructions

Completing the Maintenance Performance form (R-20)

- Complete one form for each [directly operated](#) (DO) mode.

Form Level Help: Click on the **Help** tab at the top of the screen for form level help. A form note can be attached to any form. Use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. Click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab.

Do not use the **Form Notes** feature to answer issues generated from this form. From the **Issues** tab use the **Add Comments** link next to the specific issue.

Saving or Closing the Form

Click on the **Save** button at the bottom of the screen to save the form. Click on the **Close** button at the bottom of the screen to close the form without saving.

Completing the Form

Revenue Vehicle System Failures

Line 01: Major Mechanical System Failures. By [mode](#), enter the number of [failures of mechanical components of major systems](#) that prevent the specific [revenue vehicle](#) from completing a [scheduled revenue trip](#) or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns.

Line 02: Other Mechanical System Failures. By [mode](#), enter the number of [failures of mechanical components of major systems](#) that, because of local agency policy, prevent the specific [revenue vehicle](#) from completing a [scheduled revenue trip](#) or from starting the next scheduled revenue trip even though the vehicle is physically able to continue in revenue service.

Line 03: Total Revenue Vehicle System Failures. This is an **auto-calculated** field and cannot be edited, review for accuracy. By [mode](#), the total number of [revenue vehicle](#) system failures equal to the sum of lines 01 and 02.

Inspection and Maintenance

Line 04: Total Labor Hours for Inspection and Maintenance. By [mode](#), enter the number of hours that transit agency [employees](#) (object class (501.02) other labor) spent on [inspection and maintenance of revenue vehicles](#).

Home e-File Annual Monthly Ridership Safety & Security Notes Issues Reports Communications Sys Admin Help				
Form Name: Energy Consumption Rail (R-30)			Add Form Note	Close Form
Line	a	b	c	
	Total Units Consumed per Mode	Total Units Consumed per Mode	Total Units Consumed per Mode	
Energy Type	Mode	Mode	Mode	
02	Kilowatt hours of propulsion power (EP)	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	Gallons of diesel fuel (DF)	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	Gallons of liquefied petroleum gas (LPG)(LP)	<input type="text"/>	<input type="text"/>	<input type="text"/>
07	Gallons of liquefied natural gas (LNG)(LN)	<input type="text"/>	<input type="text"/>	<input type="text"/>
14	Gallons of other fuel (OR)*	<input type="text"/>	<input type="text"/>	<input type="text"/>
Describe Other* <input type="text"/>				
<input type="button" value="Save"/> <input type="button" value="Close"/> <input type="button" value="Print"/>				

Home e-File Annual Monthly Ridership Safety & Security Notes Issues Reports Communications Sys Admin Help				
Form Name: Energy Consumption Non-Rail (R-30)			Add Form Note	Close Form
Line	a	b	c	
	Total Units Consumed per Mode	Total Units Consumed per Mode	Total Units Consumed per Mode	
Energy Type	Mode	Mode	Mode	
01	Kilowatt hours to charge batteries (EB)	<input type="text"/>	<input type="text"/>	<input type="text"/>
02	Kilowatt hours of propulsion power (EP)	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	Gallons of diesel fuel (DF)	<input type="text"/>	<input type="text"/>	<input type="text"/>
04	Gallons of bio-diesel (BD)	<input type="text"/>	<input type="text"/>	<input type="text"/>
05	Gallons of gasoline (GA)	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	Gallons of liquefied petroleum gas (LPG)(LP)	<input type="text"/>	<input type="text"/>	<input type="text"/>
07	Gallons of liquefied natural gas (LNG)(LN)	<input type="text"/>	<input type="text"/>	<input type="text"/>
08	Gallons of methanol (MT)	<input type="text"/>	<input type="text"/>	<input type="text"/>
09	Gallons of ethanol (ET)	<input type="text"/>	<input type="text"/>	<input type="text"/>
10	Gallons of compressed natural gas (CNG) (CN)	<input type="text"/>	<input type="text"/>	<input type="text"/>
11	Gallons of bunker fuel (BF)	<input type="text"/>	<input type="text"/>	<input type="text"/>
12	Gallons of kerosene (KE)	<input type="text"/>	<input type="text"/>	<input type="text"/>
13	Gallons of grain additive fuel (GR)	<input type="text"/>	<input type="text"/>	<input type="text"/>
14	Gallons of other fuel (OR)*	<input type="text"/>	<input type="text"/>	<input type="text"/>
Describe Other* <input type="text"/>				
<input type="button" value="Save"/> <input type="button" value="Close"/> <input type="button" value="Print"/>				

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Energy Consumption form (R-30)

Overview

The Energy Consumption form (R-30) collects data on the fuels consumed by revenue vehicles. These are the fuels used to propel the revenue vehicle.

Reporting Requirements and Thresholds

This form is required for directly operated (DO) service only. Complete one form for [directly operated \(DO\) rail modes](#) and one form for directly operated (DO) [non-rail modes](#).

What Has Changed from Prior Year

There are no changes for the 2007 report year.

Approach

Only the fuel used to propel [revenue vehicles](#) is reported. Lubricants are not reported.

Relationship of Employees to Other NTD Forms

This form has key reporting relationships with the following two NTD reporting forms:

1. **Revenue Vehicle Inventory form (A-30)** – The fuel types for which fuel consumption is reported on the Energy Consumption form (R-30) should be consistent — one-to-one matching — with the fuel types reported on the Revenue Vehicle Inventory form (A-30). The only exceptions to this reporting relationship are when the vehicles have been added or retired from the vehicle inventory during the report year since the Energy Consumption form (R-30) shows fuel consumption for the entire report year while the Revenue Vehicle Inventory form (A-30) shows the vehicle inventory on the last day of the report year; or there are dual fuel vehicles since the Energy Consumption form (R-30) shows each of the fuels consumed while the Revenue Vehicle Inventory form (A-30) show a dual fuel (DU) fuel type.

A new category of fuel type is now included on the Revenue Vehicle Inventory form (A-30) for [hybrid vehicles](#). Since it is difficult to measure the secondary power if it is generated as part of the vehicle design, report only the primary fuel source, such as gasoline or diesel that is used to produce electrical power to help propel the vehicle. If the “hybrid” vehicle uses batteries charged externally, then continue to report on the Revenue Vehicle Inventory form (A-30) the vehicle as a dual fuel for fuel type, with fuel consumed in each category on the Energy Consumption form (R-30), for example, kilowatt hours to charge batteries and gallons of diesel.

2. **Operating Expenses form (F-30)** – Energy consumption data reported on the Energy Consumption form (R-30) should correspond to the operating expenses for fuel and lubricants for revenue vehicles reported on the Operating Expenses form (F-30). In the NTD reporting system, one of the measures looks at cost per gallon or per kilowatt-hour of fuel consumed. The expense reported for fuel and lubricants (object class (504.01)) for vehicle operations (010) on the Operating Expense form (F-30) is used to approximate the actual cost per gallon or kilowatt-hour for revenue vehicles. Even though the expenses include lubricants, lubricants usually are a small part of the total expenses and, therefore, the approximation is a reasonable approach.

Detailed Instructions

The form is tailored for rail modes and non-rail modes. All [directly operated \(DO\)](#) rail modes are reported on the rail form, and all directly operated (DO) non-rail modes are reported on the non-rail form. The rail form has fewer selections of fuel types.

Report energy consumption in kilowatt-hours, gallons or gallon equivalents.

Rail Modes

Energy Type

Report the following types of energy consumed for [rail modes](#):

- Kilowatt hours of propulsion power (EP)
- Gallons of diesel fuel (DF)
- Gallons of liquefied petroleum gas (LPG) (LP)

- Gallons of liquefied natural gas (LNG) (LN)
- Gallons of other fuel (OR).

If none of the energy choices fits, select gallons of other fuel (OR). Internet Reporting will display a box for you to describe the other fuel (OR) consumed.

Report fuel mixtures by the amount of fuel consumed in each category.

Non-Rail Modes

Energy Type

Report the following types of energy consumed for [non-rail modes](#):

- Kilowatt hours of propulsion power (EP)
- Kilowatt hours to charge batteries (EB)
- Gallons of diesel fuel (DF)
- Gallons of bio-diesel (BD)
- Gallons of gasoline (GA)
- Gallons of liquefied petroleum gas (LPG) (LP)
- Gallons of liquefied natural gas (LNG) (LN)
- Gallons of methanol (MT)
- Gallons of ethanol (ET)
- Gallons of compressed natural gas (CNG) (CN)
- Gallons of bunker fuel (low grade of diesel fuel often used in ferryboat operations) (BF)
- Gallons of kerosene (KE)
- Gallons of grain additive fuel (typical in Midwestern parts of the U.S.) (GR)
- Gallons of other fuel (OR).

If none of the energy choices fits, select gallons of other fuel (OR). Internet Reporting will display a box for you to describe the other fuel (OR) consumed.

Report fuel mixtures by the amount of fuel consumed in each category.

Hybrid Vehicles

Since it is difficult to measure the secondary power if it is generated as part of the vehicle design, report only the primary fuel source, such as gasoline or diesel that is used to produce electrical power to help propel the vehicle. If the “hybrid” vehicle uses batteries charged externally, then continue to report on the Revenue Vehicle Inventory form (A-30) the vehicle as a dual fuel for fuel type, with fuel consumed in each category on the Energy Consumption form (R-30), for example, kilowatt hours to charge batteries and gallons of diesel.

CNG Conversion

Report compressed natural gas (CNG) in gallon equivalents. If possible, contact the supplier for the correct conversion factors. If you cannot obtain the conversion factor from the supplier, use the conversion factors in the exhibit below. In Internet Reporting, a link is provided to the **Conversion Table**.

In order to apply the factors, determine what type of fuel the revenue vehicle would have likely used if it were not powered by compressed natural gas (CNG). For example, if the vehicle is a small passenger van, the likely fuel would be gasoline. Convert compressed natural gas (CNG) to equivalent gallons of gasoline (GA). See the example below.

Exhibit 24 — Compressed Natural Gas Conversion Factors
1 Therm = 100,000 BTUs
Gallon equivalents of diesel (#2 grade) = Number of BTUs / 138,000
Gallon equivalents of gasoline = Number of BTUs / 114,000
Gallon equivalent of gasoline = 5.66 pounds
Gallon equivalent of diesel (#2 grade) = 5.42 pounds

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Example 29 – Compressed Natural Gas Conversion

Example 1: Compressed natural gas (CNG) therm conversion to equivalent gallons of diesel (DF).

A transit agency has one small bus for demand response service that uses compressed natural gas (CNG) fuel. It buys 5,000 therms of compressed natural gas (CNG).

Solution: The transit agency decides that the most likely fuel if not compressed natural gas (CNG) would have been diesel (DF).
 $5,000 \text{ therms} \times 100,000 \text{ BTU} / 138,000 = \mathbf{3,623 \text{ equivalent gallons of diesel (DF)}}$

Example 2: Compressed natural gas (CNG) therm conversion to equivalent gallons of gasoline (GA).

A transit agency has one eight-passenger van for demand response (DR) service that uses compressed natural gas (CNG) fuel. It buys 4,500 therms of compressed natural gas (CNG).

Solution: The transit agency decides that the most likely fuel if not compressed natural gas (CNG) would have been gasoline (GA).

$4,500 \text{ therms} \times 100,000 \text{ BTU} / 114,000 = \mathbf{3,947 \text{ equivalent gallons of gasoline (GA)}}$

Example 3: Compressed natural gas (CNG) pound conversion to equivalent gallons of gasoline (GA).

A transit agency has one eight-passenger van for demand response (DR) service that uses compressed natural gas (CNG) fuel. It buys 4,000 pounds of compressed natural gas (CNG).

Solution: The transit agency decides that the most likely fuel if not compressed natural gas (CNG) would have been gasoline (GA).

$600 \text{ pounds} \times 5.66 \text{ gallons per pound} = \mathbf{3,396 \text{ equivalent gallons of gasoline (GA)}}$

Line by Line Instructions

Completing the Energy Consumption form (R-30)

- Complete one form for each [directly operated](#) (DO) [rail modes](#) and one form for directly operated (DO) [non-rail modes](#).

Form Level Help: Click on the **Help** tab at the top of the screen for form level help. A form note can be attached to any form. Use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. Click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab.

Do not use the **Form Notes** feature to answer issues generated from this form. From the **Issues** tab use the **Add Comments** link next to the specific issue.

Saving or Closing the Form

Click on the **Save** button at the bottom of the screen to save the form. Click on the **Close** button at the bottom of the screen to close the form without saving.

Completing the Form

Energy Type

- Line 01: Kilowatt Hours to Charge Batteries (EB). By [mode](#), enter the number of kilowatt hours to charge batteries (EB) for electric [revenue vehicles](#) for all [non-rail](#) modes.
- Line 02: Kilowatt Hours of Propulsion Power (EP). By [mode](#), enter the number of kilowatt hours of propulsion power (EP) consumed by the [revenue vehicles](#) for all [rail](#) and trolleybus (TB) modes.
- Line 03: Gallons of Diesel Fuel (DF). By [mode](#), enter the number of gallons of diesel fuel (DF) consumed by the [revenue vehicles](#) for all [rail](#) and [non-rail modes](#).
- Line 04: Gallons of Bio-Diesel (BD). By [mode](#), enter the number of gallons of bio-diesel (BD) fuel consumed by the [revenue vehicles](#) all for [non-rail modes](#).
- Line 05: Gallons of Gasoline (GA). By [mode](#), enter the number of gallons of gasoline (GA) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 06: Gallons of Liquefied Petroleum Gas (LPG) (LP). By [mode](#), enter the number of gallons of liquefied petroleum gas (LP) consumed by the [revenue vehicles](#) for all [rail](#) and [non-rail modes](#).
- Line 07: Gallons of Liquefied Natural Gas (LNG) (LN). By [mode](#), enter the number of gallons of liquefied petroleum gas (LP) consumed by the [revenue vehicles](#) for all [rail](#) and [non-rail modes](#).
- Line 08: Gallons of Methanol (MT). By [mode](#), enter the number of gallons of methanol (MT) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 09: Gallons of Ethanol (ET). By [mode](#), enter the number of gallons of ethanol (ET) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 10: Gallons of Compressed Natural Gas (CNG) (CN). By [mode](#), enter the number of equivalent gallons of compressed natural gas (CNG) consumed by the [revenue vehicles](#) for all [non-rail modes](#). Click the **text link** to view a CNG conversion table for equivalent gallons.
- Line 11: Gallons of Bunker Fuel (BF). By [mode](#), enter the number of gallons of bunker fuel (BF) (low grade of diesel fuel often used in ferryboat operations) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 12: Gallons of Kerosene (KE). By [mode](#), enter the number of gallons of kerosene (KE) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 13: Gallons of Grain Additive Fuel (GR). By [mode](#), enter the number of gallons of grain additive fuel (GR) consumed by the [revenue vehicles](#) for all [non-rail modes](#).
- Line 14: Gallons of Other Fuel (OR). By [mode](#), enter the number of gallons of any other fuel (OR) consumed by the [revenue vehicles](#) for all [rail](#) and [non-rail modes](#). Gallons of other fuel (OR) – If none of the energy choices fit, select gallons of other fuel (OR). Internet Reporting will display a box for you to describe the other fuel (OR) consumed.

