Form 714 Viewer Getting Started Guide

This brief guide provides information to prepare, install, and use the Form 714 Viewer system. This system consists of various applications and data files, and it allows the general public to download and view Form 714 data from FERC for local viewing and analysis on the user's PC. There are additional functions to give users direct access to the data for custom analysis and review.

High Level Overview

The Form 714 Viewer software is designed to provide the best performance, maximum availability, and richest set of features to assist users in viewing Form 714 data that has been filed with FERC. The Viewer software is essentially a desktop application that can operate autonomously from FERC; a constant Internet connection is not required, and FERC resources do not have to be on-line, once data has been downloaded from FERC. A rough comparison would be to consider the data download as a sort of "file copy" function. Once the "file" is copied to the user's PC, they can do whatever they like with it (of course, in the case of Form 714, the data consists of many files).

Preparation

There are some important steps that should be taken prior to installing the Form 714 Viewer software. Since most companies "lock down" a user's ability to install software, it will be likely that the company's technical staff will need to be involved during the installation process. It is highly recommended they review this guide as well. If the user's computer and resources are not prepared correctly, the installation and initial running of the system will probably not be successful.

The Form 714 Viewer software is a standard "desktop application" type of software which has specific Internet communications features. The Viewer software can be thought of as having 2 main pieces: "application" and "database." A key point here is that the "application" part of the system should not be stored in the same place (on disk) as the "database" part of the system. So, at least 2 locations need to be planned for prior to installation.

The Form 714 Viewer software makes use of standard Internet communication protocols to obtain data and updates from FERC. Specifically, the protocols used are HTTP and FTP. HTTP is the protocol used by web browsers so it usually is not a problem. But **some companies have FTP turned off** (or blocked) by default. So, the IT group may need to check and turn on (or allow) FTP (note: all that is needed is to allow FTP communication with the FERC DNS "*eforms1.ferc.gov*" - all FTP traffic is initiated from the user's computer and FERC never 'pushes' anything out over FTP). Note that the **Windows firewall often has FTP turned off** as well, so not only the company's firewall needs to be checked, but also the local computer settings.

Above, there were 2 "locations" discussed: one for the application and one for the database. Generally, the application location will be on the user's local hard drive, and the database location will be on a network drive. However, if maximum portability is desired, the database can be downloaded to the local drive as well. Also, if there are expected to be more than 1 user accessing the data, a network drive location would be better; only 1 person would have to download data and all other users would simply "point" to that downloaded database. The primary issue with these 2 locations is that the end user must have "Full" access rights to these locations. E.g. read, write, delete, create folder, delete folder, and so on. So, because some companies may restrict access to the computer root directory, please make sure the user has full read/write access right into the Form 714 application folder (C:\FERC\Form714Viewer by default) and the Form 714 data folder. Some companies have a separate local drive (e.g. D: drive) where users are allowed more access rights.

To summarize, to prepare for installation, the following need to be considered:

- Company IT people may need to be involved in installation
- Communication setup: specifically allowing FTP with FERC ("eforms1.ferc.gov")
- Locations (folders) where the application and database will be placed

Installation

The Viewer software is a standard desktop type application. As such, during installation, it will make modifications to the Windows "registry", etc., that normally require 'administrative' access to the computer. If the Form 714 user does not have administrative rights to their computer, the installation will probably have to be performed by an IT person at the company.

Begin by opening a web browser. Navigate to the Form 714 home page on the FERC web site. Start at: <u>http://www.ferc.gov/docs-filing/forms.asp</u> and choose the Electric tab then locate the "**Form No. 714**" link.

-	Click on the categories below to view additional information. Electric Gas Hydropower Oil Service Companies			
	Form	S		
		<u>No. 1</u> : Annual Report of Major Electric Utility <u>No. 1-F</u> : Annual Report of Non-major Electric Utility		
	Form	No. 2 Or Oustarly Einspeisl Benet of Electric Hilitics, Licensees, and		
	FERC FERC Form	<u>No. 561</u> : Interlocking Directorates <u>566</u> : Twenty Largest Purchasers <u>580</u> : Interrogatory on Fuel and Energy Purchase Practices <u>No. 714:</u> Annual Electric Control and Planning Area Report <u>No. 715</u> : Annual Transmission Planning and Evaluation Report		

Click on the <u>Form No. 714</u> link and you will be directed to a web page with the following list of links. Select the *Viewer Software* link.

Form No. 714 - Annual Electric Balancing A Area Report	Back to Top	
Summary	Information	Downloads & Links
Electric transmitting utilities operating balancing authority areas and planning areas (with annual peak demand over 200MW) are required to electronically file Form 714, reporting among other things, balancing authority area generation, actual and scheduled inter-balancing authority area power transfers, and net energy for load, summer-winter generation peaks and system lambda.	Chapter: <u>18 CFR §</u> 141.51 ₪ OMB #: 1902-0140, exp 05/31/2019 Filing Date: June 1	 Form No. 714 Instructions for Overview Electronic Submission Software Viewer Software Data Downloads Sample Form PDF

Next, click the *Software* link **w** under "*Viewer Software*" section to open the webpage hosting all the Forms installation files. Then, click to the Form 714 link button on the left menu to open the Form 714 Applications page.

FERC Online Home	Download FERC Forms
Form 2	T tle 18, U.S.C. 1001 makes it a crime for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious or fraudulent statements as to any matter within its jurisdiction.
<u>Form 6</u> <u>Form 60</u>	FERC Online does not require the submission of personally identifiable Information (PII) (e.g. social security numbers, birthdates, and phone numbers), and FERC will not be responsible for any PII submitted to FERC Online, including any accidental or inadvertent submissions of PII.
<u>Form 714</u>	- Please select one of the form links from the left menu to download -

The following screen will appear. Click "Form714ViewerInstall.exe" link button to start downloading the file.

Do	wnload FERC Form 714	
Submission Software: SHA-256 Checksum:	Form714SubmissionInstall.exe	Instruction
79 Ju a0 an d8 c5 d8 88 87 78 18	4e 93 c4 90 42 2s es 86 a3 c4 90 49 7e b6 cc e6 50	27 ad c# 42
Viewer: SHA-256 Checksum:	Form714ViewerInstall.exe	Instruction
c7 37 cm 11 36 90 3m 34 bf 36 33	añ c4 ba 2c 8f 66 96 6b 4e 24 46 86 61 67 a3 fa 87	5d ed ad b1
<u>Go back</u>		

There are two ways to install the software, either: (1) open and run the application directly from the FERC site, or (2) download the file first, then run the application locally. Either way will work.

On executing the installation file, the system will prompt you for your computer local administrator credential. If you don't have one, please get help from your IT Admin.

Step-by-step installation screenshots:

Form714Viewer - InstallShield W	izard 🗖 🛛 🕱		
Preparing Setup Please wait while the InstallShie	eld Wizard prepares the setup.		
Form714Viewer Setup is prepari rest of the setup process. Pleas	ing the InstallShield Wizard, which will guide you through the e wait.		
InstallShield	Cancel		
Form714Viewer - InstallShield Wizard			
ی	Welcome to the InstallShield Wizard for Form714Viewer		
	The InstallShield Wizard will install Form714Viewer on your computer. To continue, click Next.		

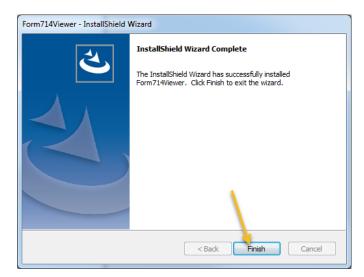
The setup program will want to place the application in the **FERC\Form714Viewer** folder on your **C**: drive. If the folder does not exist, it will create it for you. **Please do not change the folder name** or location since it is easier for us to help you if you have a default installation. Just click "**Next**".

Form714Viewer - InstallShield Wizard	x
Choose Destination Location Select folder where setup will install files.	Z
Install Form714Viewer to: C:YERC\Form714Viewer	Change
InstallShield	Back Next > Cancel

orm714Viewer - InstallShield Wizard
Ready to Install the Program The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, dick Back. Click Cancel to exit the wizard.
\ \
nstallShield
< Back Install Cancel

Form714Viewer - InstallShield Wizard
Setup Status
The InstallShield Wizard is installing Form714Viewer
InstallShie ld

Eventually, the installation will finish and you will get the following notification:



At this point, the Form 714 Viewer Application has been installed on the user's computer. Note: if there are expected to be multiple users of the Form 714 Viewer software (e.g. several people entered Form 714 data), the Form 714 Viewer software needs to be installed on each user's computer.

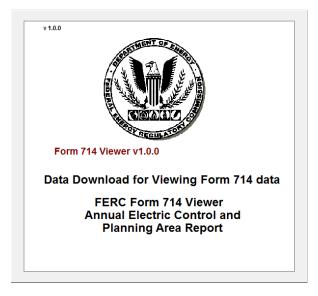
Getting Data from FERC (data download)

The first thing that should be done after the installation has been completed is to download data from FERC. Remember, just installing the software does not provide any Form 714 data. The user must select which data they would like to download and view before the Viewer software can be used.

So, to get things started, invoke the Viewer software using the Windows Start menu as with any other desktop application.



Select the Form 714 Data Download item. A startup screen will appear, similar to below, and then a Data Download window will be displayed



💐 Form 714 Viewer Data Download	
List of Available Companies:	
	· ·
Retrieve Company Listing	Internet Setup Options
Enter Year to Download: 2018	
Destination for Data or Location of Existing Data:	
C and here been	
Internet Source site of data:	
eforms1.ferc.gov	
Begin Download Finished	

At this point, if the IT person knows there are special communications requirements, or to view the current communications settings, click the Internet Setup Options button. This screen will appear:

🛅 Internet Setup Options				,
These are options that				
access is restricted. Blank these out if they are not needed at your site.				
HTTP Protocol Settings				
Proxy Settings (if applicable	e)	Authentica	ation (if required	d)
Host (Name/IP Address):	Port:	Authentica	tion Username/	ID:
Logon Name/ID:	Password:	Authentica	tion Password:	
FTP Protocol Settings (only	use if problems of	occur with star	idard settings)-	
E Force to normal (non-Pa	ssive) FTP only	Force Non-pas	ssive via Port:	
Note the FTP Server ex	pects only anon	vmous FTP I	ogons. Howey	er, some
	Note the FTP Server expects only anonymous FTP logons. However, some company FTP Proxy servers may need to make use of these settings.			
Remote Host Setting:		Ren	note Port:	0
User Name/ID:		Password:		
L				
· · · · · · · · · · · · · · · · · · ·				
FERC Address (change not	recommended):	eforms1.ferc.	gov	
	Clos			

The items on the above window will probably only need to be modified if unusual settings are employed at the company. Most modern firewalls/proxies operate 'transparently' and these settings do not have to be altered. But, if the Form 714 Viewer software informs the user that FERC could not be contacted, etc., these settings may need adjustment. If you displayed this window, close it now by clicking the *Close* button.

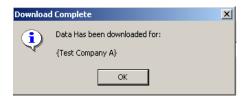
So, to see the available company list, click the Retrieve Company Listing button on the Data Download window. It should update with something like the following:

💐 Form 714 Viewer Data Download	- • •
List of Available Companies:	
Alabama Power Company	*
Allete (Minnesota Power)	
Alliant Energy-East	
Alliant Energy-West	
Ameren (Illinois Power Co. Control Area) Ameren CII CO	
Ameren Cilco Ameren Corporation Control Area	_
Ameren Corporation Control Alea	
Retrieve Company Listing	Internet Setup Options
Enter Year to Download:	
Get all companies for the specified year	
Destination for Data or Location of Existing Data:	
Internet Source site of data:	
eforms1.ferc.gov	
Begin Download Finished	
Server response received - process completed	

Now, note the "*Destination for Data or Location of Existing Data*" in the middle of the window. Remember, in the preparation, this location was supposed to be decided upon. The recommendation is a network folder. The above shows the default location, on the local hard drive. The button to the right of the location can be used to 'browse' folders, looking for the location where the database should be set up. Again, note the user must have Full access rights to the folder where the database will be placed.

After the location has been set correctly, select the company to download from the list (click on the name). Then click the *Begin Download* button.

After a few moments, if the download and database creation was successful, a message like the following should be displayed:



Click the *OK* button. At this point, another company can be selected and/or the data year can be changed. To download additional companies or year, simply select the company, verify the year, and click *Begin Download* again. After each successful download, the above dialog will appear for the company downloaded.

To continue into the Viewer, click the *Finished* button on the Data Download screen.

The system will run through a few other checks, and then the main application will appear. The display will look something like the following:

ile Edit Options Window Help	
Schedule Selector	
Select Company/Year: [Test Company A]	▼ 2018 ▼
Title of Schedule	Page Reference
Part I - Schedule 1. Identification and Certification	1
Part II - Schedule 1. Generating Plants Included in Reporting Balancing Authority Area	2
Part II - Schedule 2. Balancing Authority Area Monthly Capabilities at Time of Monthly Peak Demand	3
Part II - Schedule 3. Balancing Authority Area Net Energy for Load and Peak Demand Sources by Month	4
Part II - Schedule 4. Adjacent Balancing Authority Area Interconnections	5
Part II - Schedule 5. Balancing Authority Area Scheduled and Actual Interchange	6
Part II - Schedule 6. Balancing Authority Area System Lambda Data	7a
Part II - Schedule 6. Description of Economic Dispatch	7b
Part III - Schedule 1. Electric Utilities That Compose the Planning Area	8
Part III - Schedule 2. Planning Area Hourly Demand	9a
Part III - Schedule 2. Forecast Summer and Winter Peak Demand and Annual Net Energy for Load	9b
Export Select Close	· · ·

Note the "Select Company/Year:" option near the top of the Schedule Selector window. The year may be blank on a first time run, so make sure the desired company and year are selected.

If this point has been reached, the Form 714 Viewer software has been successfully installed and company data has been successfully downloaded. To view data, simply select the desired item from the list and click the Select button.

The next time the software is invoked, the data download function does *not* need to be run again. From the Windows Start button, the Viewer software can be directly invoked:



That is, the item; "*Form 714 Viewer*" can be invoked without downloading data again. However, if other companies' data are desired, or if the user wants to ensure they have the latest data for a given company, the "*Form 714 Viewer Data Download*" item would be used to download data from FERC.

Multiple user set up

Above there was a brief mention about cases where a company (or site) may have more than 1 person that desires to view Form 714 data. If that will not be an issue, just ignore this section. Otherwise, here are the general steps to set up additional users.

First, install the software on 1 user's machine and go all the way through the data download process (as described above). Of course, clearly make note of the folder where the database was placed ("*Destination for Data or Location of Existing Data*"). It will probably be on a network drive if it is to be viewed by multiple users.

Next, on each additional user's machine, install the software as usual. However, when using the *Viewer Data Download* function, do not download data; simply use the "browse" button (the 3 dots) to locate the folder where the Viewer data had already been downloaded to. Do not click the *Begin Download button*.

Simply fill in the proper location, and then click the *Finished* button.

Of course, the database location should be somewhere that all users have Full access rights (which would generally imply a network folder/location).

Note: If special communications settings had to be entered to get the initial user to function (on the Internet Setup Options screen), those setting will have to be duplicated in each user's Internet Setup Options as well.

Brief Software Overview

At this point, the software is installed and data has been downloaded. The following will describe a few of the features and functions in the Viewer software.

Remember the main interface from above:

FIRC Form 714 Viewer: Annual Report v1.3.0 [{Test Company A} - 2018] File Edit Options Window Help	
🖉 Schedule Selector	
Select Company/Year: [Test Company A]	2018 💌
Title of Schedule	Page Reference
Part I - Schedule 1. Identification and Certification	1
Part II - Schedule 1. Generating Plants Included in Reporting Balancing Authority Area	2
Part II - Schedule 2. Balancing Authority Area Monthly Capabilities at Time of Monthly Peak Demand	3
Part II - Schedule 3. Balancing Authority Area Net Energy for Load and Peak Demand Sources by Month	4
Part II - Schedule 4. Adjacent Balancing Authority Area Interconnections	5
Part II - Schedule 5. Balancing Authority Area Scheduled and Actual Interchange	6
Part II - Schedule 6. Balancing Authority Area System Lambda Data	7a
Part II - Schedule 6. Description of Economic Dispatch	7b
Part III - Schedule 1. Electric Utilities That Compose the Planning Area	8
Part III - Schedule 2. Planning Area Hourly Demand	9a
Part III - Schedule 2. Forecast Summer and Winter Peak Demand and Annual Net Energy for Load	9b
<u>Export</u> <u>Select</u> <u>Close</u>	· · ·

To bring up a schedule for viewing, select the item and click the Select button (or double-click the item). So, if Part II - Schedule 2 were selected, the following would appear

M	Preview					vity Area and Pl			
	ederal Energy Regulatory Commission Annual Electric Balancing Authority Area and Planning Utility Code: Utility Code: Utility Area Report For the Year Ending December 31,2018							-	
			Part II - Schedu	ile 2. Balancing Auth	ority Area Monthly Ca	oabilities at Time of Mor	thly Peak Demand		
					structions. Please first r must be explained in a	ead the instructions, then footnote.	complete this Schedul	e. The value in column	(c) for the month of the
	Net Capability at the Time of the Monthly Peak Demand, Based on Balancing Authority Area Area Net Energy For Load (NEL)							1	
		Net Capability from Plants Reported on Schedule II External to the Balance Area Net Unit or Firm (MW)			Firm Capability				
			Una	available Capability Due	e to:				
Line No (a)	M onth (b)	Available Capability (MW) (c)	Planned Outage and Derating (MW) (d)	Unplanned Outage and Derating (MW) (e)	Other Outage and Derating* (MW) (f)	Total (c + d + e + f) (M W) (g)	Available (MW) (h)	Not Available (MW) (i)	Total Capability (g + h + i) (MW) (j)
1	Jan	62,448	-1,408	-1,381	0	59,659	-553		59,1
2	Feb	62,448	-1,408	-1,488		59,552	-553		58,9
3	Mar	61,433	-2,756	-1,050		57,627	-626		57,
4	Apr	61,393	-3,305	-3,070		55,018	-626		54,
5	May	61,302	-1,124	-1,925	-300	57,953	-626		57,
6	Jun	60,779	-800	-1,603	-300	58,076	-705		57,
7	Jul	60,779	-1,234	-1,368	-300	57,877	-705		57,
8	Aug	60,778	-1,217	-1,968	-300	57,293	-705		56,
9	Sep	60,626	-2,700	-1,438	-300	56,188	-705		55,
10	Oct	61,355	-3,100	-1,383		56,872	-626		56,
11	Nov	61,355	-4,100	-2,075		55,180	-626		54
12	Dec	62,416	-3,600	-2,522		56,294	-553		55

The above is a 'preview' of what the data would look like if it were printed in paper form. Note the "Print Preview" window in the upper left area of the screen. If there are additional pages (some schedules can have continuation pages), the "triangle" buttons will be enabled (e.g. to go to the

next/previous page). The button with the picture of a printer on it will print the displayed data (all pages). To exit the preview, click the button with a picture of a door.

Also note that the data can be printed, in Form (paper) format, by using the File | Print menu option. In addition to viewing schedules, data can be directly exported to Excel spreadsheet files. To do this, select the item on the *Schedule Selector* window and click the Export button. The following window will appear:

Data Export to Excel Spreadsheet format						
Current Data to Export:						
Part II - Schedule 2. Balancing Authority Area Monthly Capabilities at Time of Monthly Peak Demand						
Filename to Export to (include complete path):						
✓ Open exported file after creation						
Export Close						

Note the "*Filename to Export to...*" option. The default will be <u>exportdata.xls</u>, however if multiple schedules are going to be exported, the name of the file should be changed (otherwise each export will simply overwrite the previous one):

Lastly, it is important to remember to not attempt to export to a file that is already open and being viewed by a spreadsheet program. The export cannot be performed to a file that is open by another program.

Some notes about data downloads from FERC

Remember, the data downloaded from FERC is a local, temporary copy. It is not updated automatically. So, as additional years of data are filed with FERC, the company data for those years will need to be downloaded.

For advanced users, those that are used to working with databases, the complete data set of Form 714 can be accessed via ODBC. The ODBC driver to use is Visual FoxPro (the ODBC driver for version 6 is fine). The name of the database is Form714.dbc. Note, when using ODBC to access the database, it is recommended to turn *off* the "Exclusive" mode. That way, accessing the data will not interfere with other Form 714 Viewer functions.

On the previous data download screen, it was shown how to download a single company at a time. But there is another option for those that do more generic analysis or desire data from many companies.

Remember the Data Download window:

💐 Form 714 Viewer Data Download	
List of Available Companies:	
Retrieve Company Listing	Internet Setup Options
Enter Year to Download: 2018	
Destination for Data or Location of Existing Data:	
Internet Source site of data:	
eforms1.ferc.gov	
Begin Download Finished	

Note the option labeled "*Get all companies for the specified year*" (just under the *Retrieve Company Listing* button). If that option is checked, the data download function will download all company data for the specified year. It will do this even if a company listing is displayed and one of the companies is selected. The "*Get all companies…*" option overrides the individual selection.

Note that companies file at different times. Therefore, it is recommended to use the "Get all companies..." download function only after the filing deadline for the given year. If a company has not yet filed with FERC, their data will not be available for downloading.

The Form 714 Viewer software application will automatically update itself. That is, if there are changes to some schedules, or improvements to output layouts, updates may occur. But these updates only affect the application part of the system. Company data is not updated automatically.

Final Notes

Usually, most of the problems are encountered in the setup of the software. These are the key items in that regard:

- The user must have full access rights to *both* the application folder and database folder
- HTTP and FTP are used to communicate with FERC. FTP is often shut off by default and needs to be turned on/enabled
- If special proxy configurations are used by a company, each user's Form 714 Viewer software will need to be configured accordingly (the *Internet Setup Options* window)
- The Form 714 Viewer database is a local copy at the user's facility
- If there are multiple users, they can 'point to' the same folder
- Company data is not updated automatically. To ensure the latest company data is obtained, the company data can be re-downloaded at any time.