



Profile Energy Monitor App

For Android

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Introduction

The Profile Energy Monitor application allows anyone with an Android device (phone or tablet) to download survey data from their Profile Portable Energy Recorder via its USB connection.

Analysis of downloaded data is provided by way of a survey summary report showing the kWh, kVAh & kVArh total consumption for the downloaded period as well as the peak period demand (kW, kVA & kVAr), and a range of charts displaying kW, kVA, kVAr demand or period amps, volts & power factor.

Once download, the survey data can also be copied to a PC or Windows laptop for analysis within the Profile's ProPower 2 analysis software.

Requirements

Android device with USB connection and Android version 4 or higher installed*
Suitable USB cable**

* The Profile Energy Monitor app may work on earlier versions of Android but these are not supported and intermittent issues may be encountered.

** A suitable USB cable is required to connect your phone/tablet to the Profile. The Profile has a standard USB-Mini-B connector. Most Android phones & other devices contain a USB-Micro-B connector. The *Lindy* cable part numbers 31717, 31718 & 31719 have been found to be suitable in these circumstances. Please note that this is not a recommendation and the specific requirements of individual phones/tablets should be checked before purchasing a suitable cable.

Installation

The Profile Energy Monitor application is provided with any new Profile purchase as an Android installation (.apk) file on the ProPower2 installation disk. In order to install it on your Android device you will need an APK installation application (Most devices already contain one as standard. Many are available from the Google Play Store). Please follow your installation application's procedures to install the Profile Energy Monitor app.

N.B. In order to install the Profile Energy Monitor application directly from a saved .apk file, your device security settings must be set to allow installation of applications from unknown sources (Settings>Security).

The Profile Energy Monitor App is also available from the Google Play Store;

<https://play.google.com/store/apps/details?id=newfoundenergy.profile.energy.monitor>

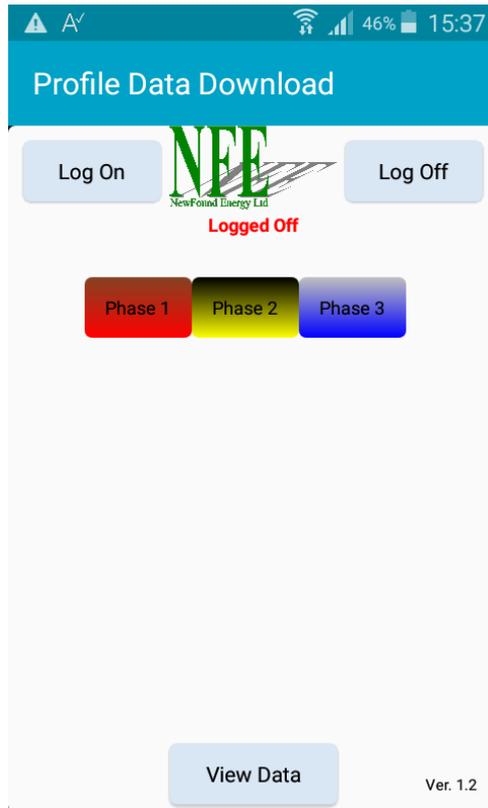


Once installed, the Profile Energy Monitor application will appear in your app list with the following icon.



Using the Profile Energy Monitor Application

On first opening the Profile Energy Monitor App you can choose to *Log On* to a connected Profile, or to view previously downloaded data.



Three buttons are available;

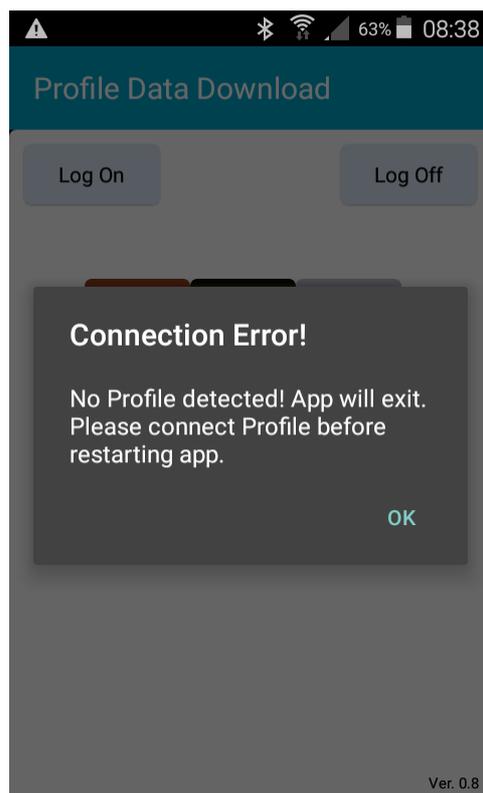
Log On – opens the connection to the Profile & displays live connection readings.

Log Off – closes the connection to the Profile.

View Data – displays summary of existing data file.

To **exit** the application, press your device 'Home' or 'Back' button.

In order to **Log On**, a Profile must be connected to your device's USB port. If **Log On** is attempted with no Profile connected, the following error will appear.



When a **Log On** is first attempted you may be prompted to allow the app access to the device's USB port. USB access must be allowed in order for the app to operate correctly.

Profile Data Download

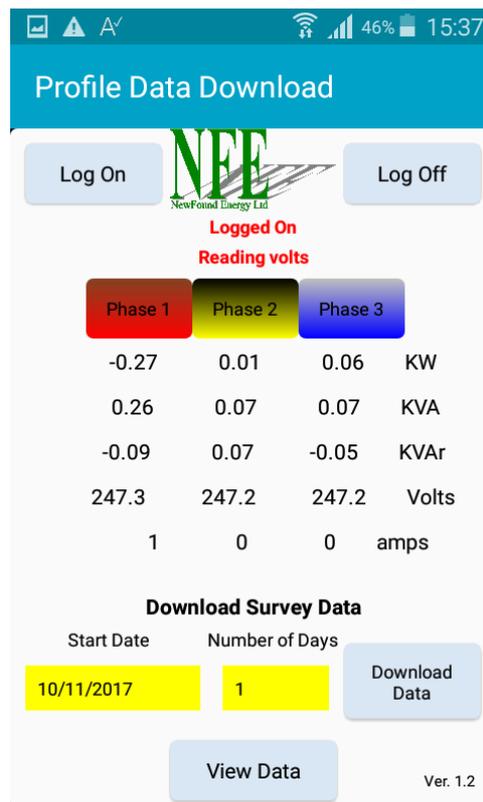
Allow the app Profile Data Download to access the USB device?

Use by default for this USB device

CANCEL OK

After allowing USB access, the app will close and will need to be restarted. If the app does not close automatically, it may be necessary to close & restart it manually in order to instigate the USB permissions and allow the **Log On** process.

Touching **Log On** opens the USB connection to the Profile. Once connected the app will display live readings (phase by phase kW, kVA, kVAr, Volts & amps) from the circuit on to which the Profile's Rogowski coils are connected;



Once *Logged On*, the '**Download Survey Data**' area also becomes available.

N.B. Always Log Off before disconnecting the USB cable. Failure to do so may cause the Profile to remain in 'communications mode', causing future communication problems.

If this occurs either;

a) power the Profile off & on again, or

b) close the app before reconnecting the USB cable. Then restart the app and touch **Log On**. Allow the 'live data' to be displayed before touching **Log Off**.

The app automatically '*Logs Off*' if it is closed, after completing a download, or when viewing data analysis screens.

Downloading Survey Data

To download survey data, the survey **'Start Date'** & length (**'Number of Days'**) must be set.

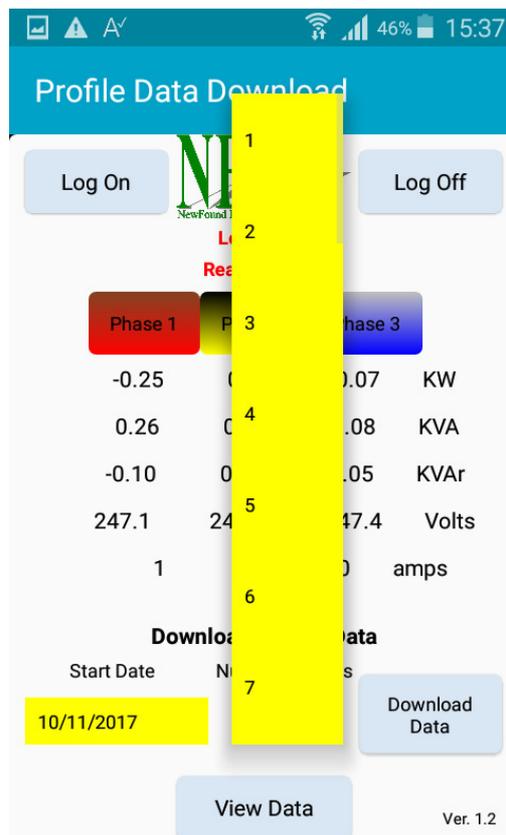


To set the **'Start Date'**, touch the *Start Date* area and a scrolling date selector will appear. Select the start date of the survey by touching the appropriate date from the list.

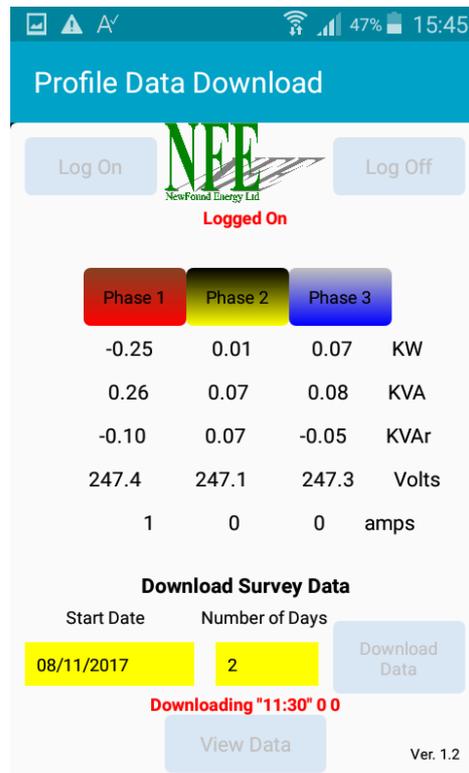
It is possible to set the start date up to 62 days prior to the current date (i.e. the last 62 days' data is available to download).

The **'Number of Days'** is set in a similar way;

Touch the **'Number of Days'** area and select the length in days of the survey to be downloaded.



Once the **'Start Date'** & **'Number of Days'** have been set, touch the **Download Data** button to start the data download.

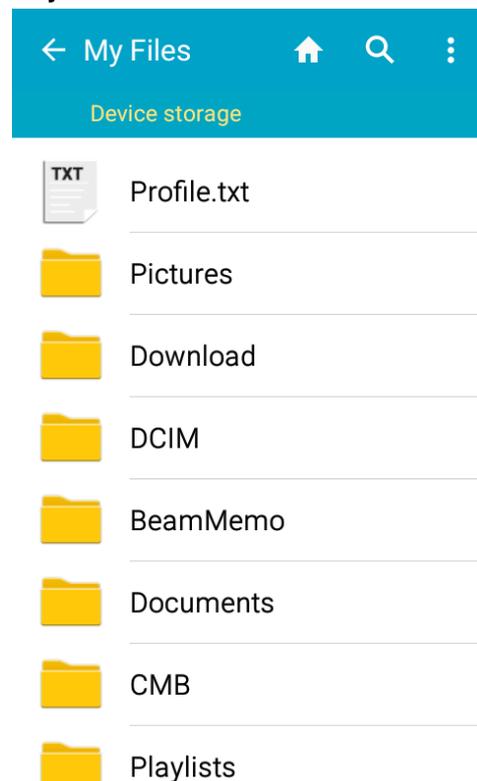
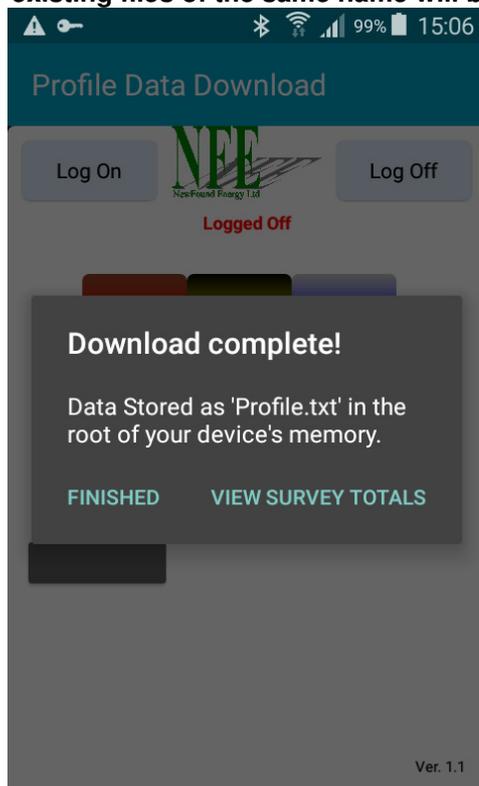


A message will appear towards the bottom of the screen that scrolls through the data being downloaded.

N.B. It is important that the Android device & Profile are not interrupted during the data download process. Please ensure that the Android device has sufficient battery power and that any screen savers or power saving modes (screen timeouts for example) do not interrupt the process which should take no more than a couple of minutes.

If the data download is interrupted for any reason, it may be necessary to repeat the download in order to ensure a complete and valid data file is created.

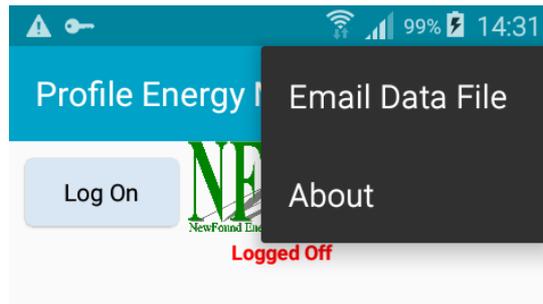
Once the download is complete, the data will be saved to a file named **'Profile.txt'** in the root folder of the device's memory. **Any existing files of the same name will be automatically overwritten.**



This downloaded data file can be copied onto a PC & loaded into the ProPower 2 **'File Display'** program for analysis.

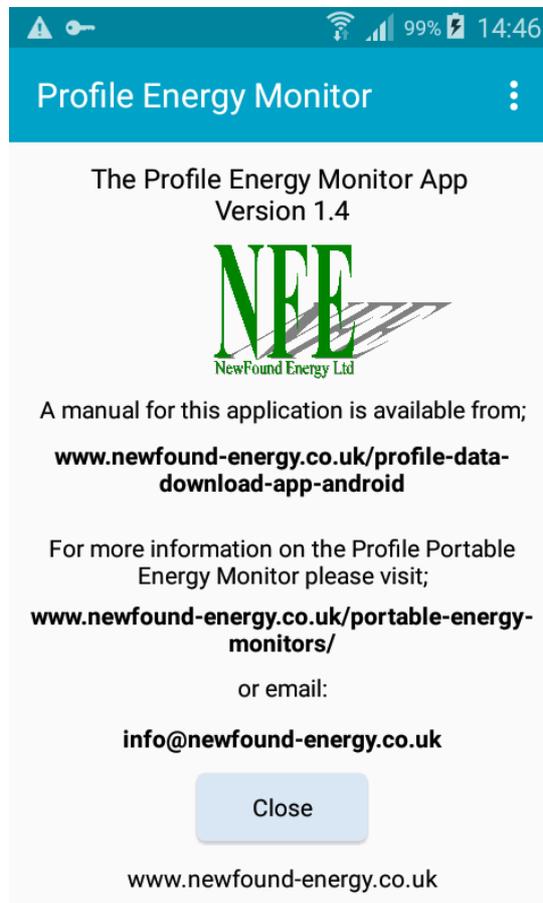
Menu Options

Two menu options are available within the app.



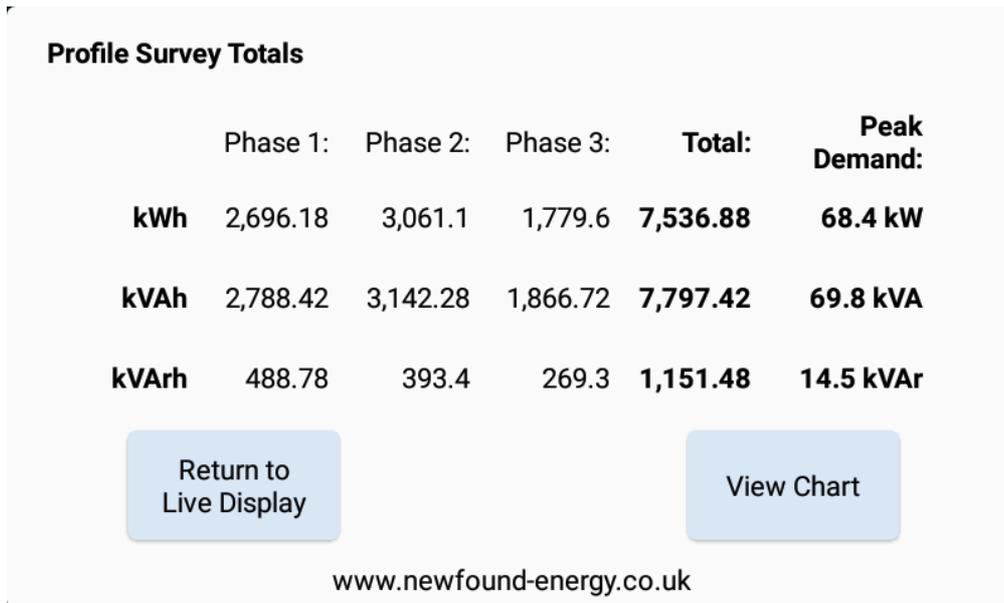
Email Data File – starts your default email app and attaches the downloaded Profile survey data file to an email ready for sending. If no default email app is set, you will be asked to choose one.

About – opens the 'About' page.



Data Analysis

By clicking **View Data** on the app's first page, or **View Survey Totals** on the 'Download Complete' message box, a summary report of survey data can be viewed.

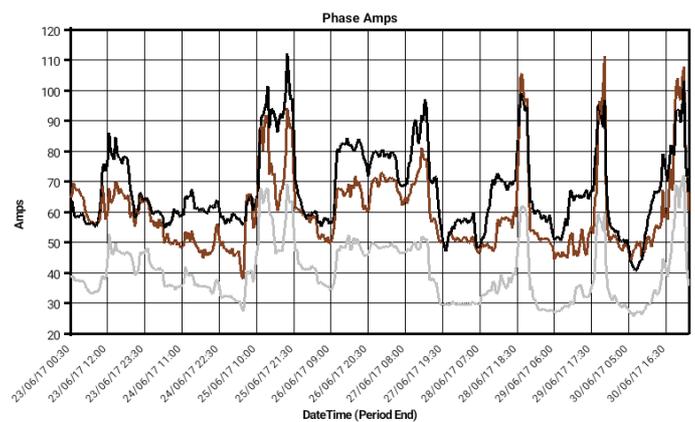
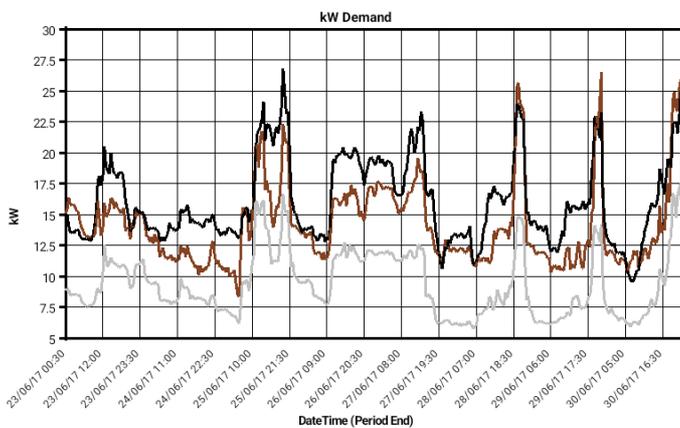


In order to view this report, a valid Profile data file named '**Profile.txt**' must exist in the root folder of the device's memory.

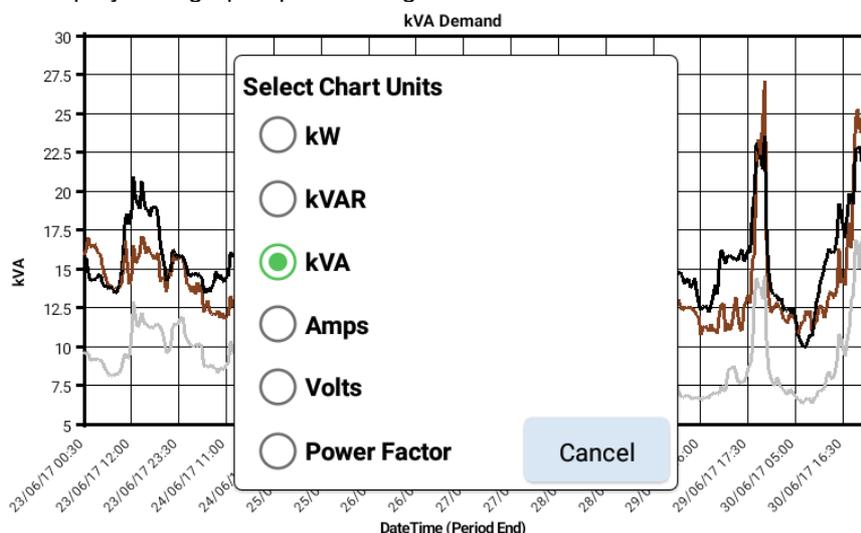
Two options are available from the survey report display;

Return to Live Display – returns to the app main/front page (in a 'Logged Off' state).

View Chart – displays graph pages.



Touching the graph area displays the graph option dialogue from where the chart units can be selected;



Troubleshooting

Problem 1

The app freezes during the data download process.

Possible Resolutions

a) Check the '**Downloading ...**' text displayed above the **View Data** button, if this is changing then data is being downloaded successfully. Downloading data can take a number of minutes to complete.

b) If the '**Downloading ...**' text appears frozen for 10s or more, the connection between the Android device and the Profile may have been lost. Close the app (press the *Home* or *Back* key), and check the cable is securely connected to both the Profile & phone/tablet.

Check the Profile display; if after closing the app it still displays '*Communication in progress*', power the Profile off & on again.

Now re-attempt data download.

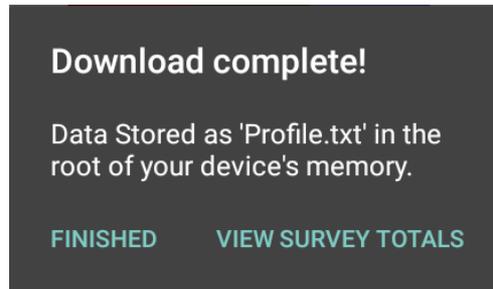
If the problem persists, the cable in use may be faulty or unsuitable for this application.

Problem 2

Survey data readings are not as expected or are incomplete.

Possible Resolutions

a) Re-attempt downloading of survey data ensuring that correct **Start Date** and **No. of Days** settings are applied. Also ensure that the data download completes successfully; the following message will appear at the end of a successful download of data:

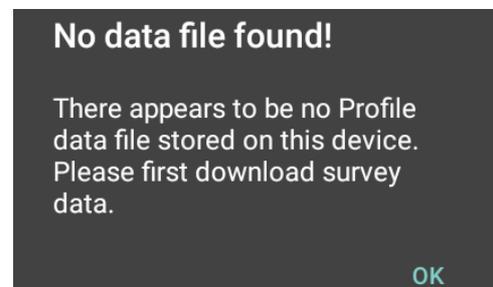


If this message is not received after attempting to download data refer to **Problem 1** above.

b) Check the installation of the Profile hardware ensuring that all coils are attached to the correct phases, are the correct way around, and that the *AutoPhase* or *Phase by Hand* routines have been completed - refer to Profile installation guides for more details.

Problem 3

When attempting to **View Data** or **Email Data File** the following message is received;



Possible Resolutions

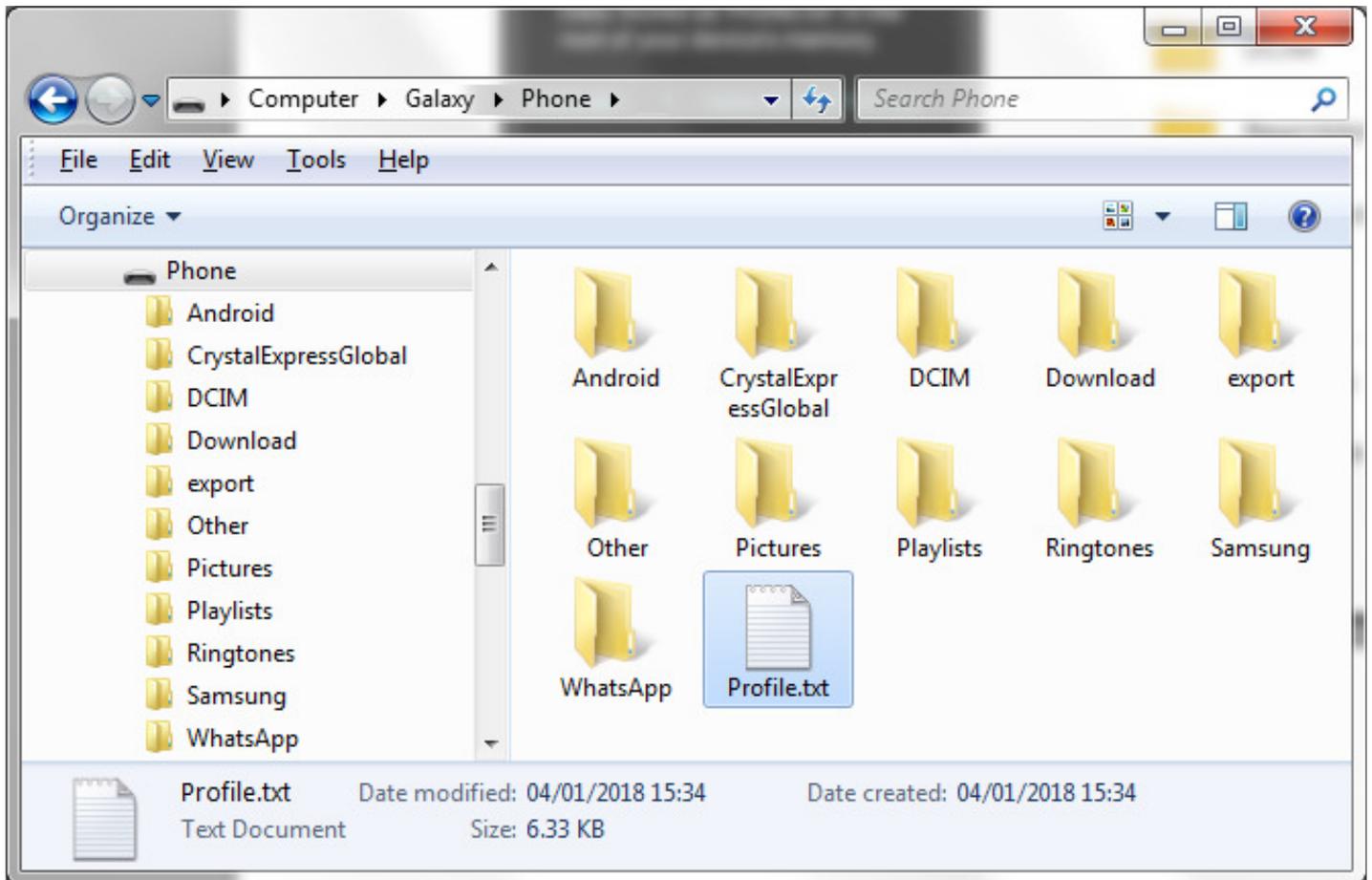
a) For ease of use, the Profile Energy Monitor app does not ask the user to supply a path or filename to use for the downloaded data file.

Downloaded survey data is always stored as a file named **Profile.txt** in the **root directory of the devices external memory**. This may be an SD card if one is present, or the phones/tablets own memory.

Similarly, when attempting to email the data file or analyse the data within it, the user does not need to tell the software where the data file is located. It is always assumed that the data file will be named **Profile.txt** and be located at the path specified above.

If you have deleted, moved or renamed the Profile data file, the app will not be able to find it.
If you have not downloaded data directly from a Profile to your phone/tablet, but (for example) have copied or emailed a Profile data file to it from a PC, you must ensure that it is named **Profile.txt** and saved in the **root directory of the devices external memory**.

Ordinarily, when a phone or tablet is attached to a PC and is viewed through Windows Explorer, the location to save the Profile data file will look something like the following;



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The specification of the Profile Portable Energy Recorder, the ProPower 2 software & the Profile Energy Monitor application are subject to change without prior notice.

For information of further systems designed to assist you to use your resources more efficiently please see www.newfound-energy.co.uk

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