

Instructions for Using the West-wide Energy Corridor Final PEIS Map in ArcReader

The WWEC Interactive Map is provided as a supplement to Volume III of the PEIS. “Interactive” means that you can “zoom in” to areas of special interest and select the information to be displayed on the map.

The WWEC Interactive Map uses the free Environmental Systems Research Institute (ESRI) ArcReader application, which can be downloaded from <http://www.esri.com/software/arcgis/arcreader/index.html>. Instructions for installing and using ArcReader are also available at that location.

Once you’ve installed ArcReader, you can download the WWEC Interactive Map project to your computer. The WWEC Interactive Map is provided in two parts as follows:

Distribution File	Contents	Purpose
WWEC Interactive Map.zip	WWEC Interactive Map.pmf	ArcReader project for all users
	WWEC Interactive Map.mxd	ArcGIS project for users having ESRI ArcGIS software
	WWEC Interactive Map.pdf	These instructions
	WWEC PEIS GIS Contents.pdf	Table listing database content
	CoreData directory	Core GIS database
WWEC Interactive Map Extended.zip	WWEC Interactive Map - Extended.pmf	Extended ArcReader project for all users
	WWEC Interactive Map - Extended.mxd	Extended ArcGIS project for users having ESRI ArcGIS software
	WWEC Interactive Map.pdf	Same file as above
	WWEC PEIS GIS Contents.pdf	Same file as above
	ExtendedData directory	Extended GIS database

The first set of files provides the core data with an interactive map project to view it. The extended version uses files from both the core and extended databases and has an interactive map with extended content. See the WWEC PEIS GIS Contents.pdf file for details on which map layers are provided in the core and extended portions.

The files are provided in the zip file format that most current operating systems support. Open the WWEC Interactive Map.zip file and extract the files. If you would like to include the extended files, extract them into the same directory. You may be prompted about the overwriting the two PDF files. It is OK to skip these files or overwrite them since they are the same.

Once you’ve installed ArcReader and the contents of the zip file(s), double-click on the WWEC Interactive Map.pmf (or WWEC Interactive Map – Extended.pmf) file to open the WWEC Interactive Map. (Alternatively, users with commercial ESRI ArcGIS desktop software can open the mxd files.)

When the WWEC Interactive Map opens, your screen will be divided into three parts: the menu and toolbar along the top, the Table of Contents on the left side of the screen, and the data view (the map) on the right side of the screen.

Menu and Toolbar

The ArcReader program includes an extensive help system through the **Help** item on the menu bar, which provides a broader explanation of the software than this document.

A description of the tools in the toolbar appears if you hold your cursor over each icon. The most important tools are the zoom tools (there are five of them): the **Pan** tool, the **Scale** drop-down list, the **Identify** tool, the **Find** tool, and the **Measure** tool.

Click on the **Zoom In** tool to select it, then left-click and drag a box around the specific area of interest of the map. The map will zoom to that area. Optionally, you can single-click a location of interest, and the map will zoom in, centering on the click point. The **Zoom Out** tool works the same way, except in reverse.

To use the **Continuous Zoom/Pan** tool, left-click and hold the cursor down on the map and drag the cursor up to zoom out, or down to zoom in. Right-click and drag to pan the map.

The **Fixed Zoom In** and **Fixed Zoom Out** buttons work on the map as soon as you press them.

The **Pan** tool lets you move to a different part of the map without changing the scale (or zoom level). Left-click on the map and drag to pan the map.

The **Full Extent** button returns the map to the full West-wide view.

The **Go Back** and **Go Next** buttons let you return to previous zoom levels.

The **scale** drop-down control lists the current scale of the map, and the scale can be changed by entering a new value and hitting Enter or by choosing a scale from the drop-down list. Scale is the ratio between a distance on the map and the true distance on the ground. See the **Map Scale** section below for more information.

The **Identify** tool looks up the descriptive information (attributes) linked to map features. The first time you click the **Identify** tool, a dialog box appears with instructions on how to use it. The drop-down list at the top of the dialog specifies which map layer(s) to list information from. When you click on the map, the names of layers with data in that location are listed on the left and the attributes for the features at the click point are listed on the right. For example, if you click on “Seattle, Washington,” the left side of the dialog box will list “Major City” as the layer below the layer with the name of the feature you clicked on, “Seattle.” Attributes for Seattle, such as name, population, state, and

status, are listed on the right side of the box. Right-clicking the layer name on the left side of the box displays a menu of further actions that can be chosen.

The **Find** tool lets you find features by querying their attributes. For example, if Seattle wasn't visible on the map, you could use the **Find** tool to locate it. Click on the **Find** tool and make sure the Features tab is active. In the "Find:" box, type in "Seattle;" in the "In:" list box, choose "Major City;" then click the Find button. You'll see a list at the bottom with the value that was found, the layer it was found in, and the field name it was found in. In this example, just one feature, Seattle, was found. Right-clicking the feature in the list displays a menu of further actions that can be chosen.

The **Measure** tool lets you measure the distance between two points or along a route. Clicking on the **Measure** tool opens the Measure dialog. Click a starting point on the map, then move and click the point you want to measure to. The dialog displays the length of the segment you've drawn, and the total length, as more points are clicked. Double-click to end the measurement process. The drop-down menu at the top of the dialog allows different units to be chosen, and the other choices at the top of the dialog allow measurements of areas, feature statistics, and other capabilities.

The Table of Contents

The **Table of Contents** at the left side of the ArcReader screen lists the layers and groups of layers in the order in which they are drawn. Layers higher on the list draw on top of layers farther down.

When you open the WWEC Interactive Map, each layer or layer group in the **Table of Contents** displays a plus sign, a box (checked or unchecked), and the name of the layer or layer group.

The plus sign indicates that more information is available than is being shown in the list. Clicking on the plus sign will make one of two things happen: if the name in the **Table of Contents** is for a group of layers, the layers in that group will be listed below it; or, if the name in the **Table of Contents** is a single layer name, the symbol used to display the layer in the map will be shown. For example, click on the plus sign to the left of "Upper Base Layer Group." This is a group of several other layers and groups of layers. Click on the plus sign to the left of "Interstate" in the "Transportation Group". The line symbol used to symbolize Interstates on the map is displayed below the layer name.

The checkbox next to each layer or layer group in the **Table of Contents** determines whether or not that layer is displayed on the map. A gray check in a gray checkbox means the layer is not displayed because the map is not currently at the proper scale (scale is discussed later in these instructions).

Right-clicking on a layer name displays a menu of choices. For example, right-click on one of the layers and choose "Properties." A box with the layer's properties will be displayed. Most of the layers in the WWEC Interactive Map have a brief description of

the source of the information, further description if needed, and the range of scales for which the layer will be displayed.

Although the map has been designed to minimize this, some layers can obscure others if they are displayed on the map at the same time. For example, the “Locally Designated Portions of Proposed Corridor” group should not be displayed at the same time as the “Energy Corridor Along Existing Right of Way (Vol III, Part 4)” group.

Map Scale

The amount of detail that can be shown on a map is largely dependent on map scale. Scale is displayed in the **Scale** drop-down list at the top of the screen as a ratio of distances on the map compared to distances on the ground. For example, a scale of 1:12,000,000 means that 1 inch on the map equals 12 million inches on the ground.

Scale is referred to as being “large” or “small” depending on the ratio. The ratio is also a number, so, continuing the example, 1/12,000,000 would be a very small number – or small scale. 1/24,000 is a larger number representing a larger scale. Larger scale maps can show more detail than smaller scale maps.

If all the layers in the WWEC Interactive Map could be turned on at the same time at a scale of 1:12,000,000, the result would be an unreadable mess. For this reason, “scale dependencies” have been set for each layer to make sure that it displays at an appropriate scale. The scales used for the dependencies have been grouped as follows:

- Small Scale Smaller than 1:3,000,000
- Medium Scale 1:1,000,000 to 1:3,000,000
- Large Scale 1:500,000 to 1:1,000,000
- Local Scale Larger than 1:500,000

CAUTION: Although no limit has been set, maps at scales larger than 1:1,000,000 are incompatible with the intended use of several of the layers in the **Table of Contents**. The accuracy of such maps is questionable.

Making a Custom Map

The **Layout View** (the icon that looks like a piece of paper in the lower left corner of the map) provides the added map elements used for printed maps. When in **Layout View**, another tool bar is present for zooming in and out the layout as a whole. These tools are **Page Zoom In**, **Page Zoom Out**, **Page Pan**, etc., and work the same as their mapping tool counterparts. The **Layout View** has been designed for an 8-½ × 11 page.