



Trees for Kids i-Tree Design Benefits Calculation and Project Map



The companies that provide major sponsorship for Trees for Kids, including Alliant Energy Company, MidAmerican Energy Company, Black Hills Energy Company, and ITC, understand the importance that trees play in energy use reduction, which is a significant part of why they continue to invest in the program. As part of the application process, you will use the **i-Tree Design** program to determine the amount of long-term energy savings generated by your tree planting. This information will then be sent to the sponsoring organizations for use in energy efficiency reporting.

1. Go to <https://design.itreetools.org/>
2. Enter the address of your planting location in the “Enter a street address below to get started” box and click “Go!” (NOTE: You will need to perform separate calculations if planting in multiple sites)
3. A Google Maps® image of your site will appear. Click “Yes” if there is a building on site with heating and/or cooling; click “No” if there is a building with neither heating nor cooling OR no building at all.
 - a. If “Yes,” follow the instructions under “To draw a structure:” (Click on the “+” button at the bottom right corner of the map or scroll your mouse to enlarge image). Enter appropriate information in “Please enter house information” popup, then proceed to step 4.
 - b. If “No,” proceed to step 4.
4. Under “2. Place Trees,” start by selecting a species included in your plan from the “Tree Species: (Midwest Region)” drop-down menu; if you can’t find the species you’re looking for, choose a similar species or select from one of the generic options such as “Other, Broadleaf Deciduous Medium” or “Other, Conifer Evergreen Large,” for example (PLEASE NOTE: For “Other...” options, “...Small,” “...Medium,” and “...Large” refer to size of species AT MATURITY). Type “1” in the “Tree diameter” box and leave the accompanying units as inches; leave the “Tree condition” as “Excellent” and “Tree Exposure to Sunlight” as “Full sun.”
5. Once you have the information entered for step 4, click on the icon of the tree with the plus sign at the top of the map window (NOTE: you’ll notice a colored grid appear around your building – this grid indicates the areas where savings are greatest, in dark green, and least, in yellow). Move your mouse over the map and click on the location where you’d like to place your tree. Refer to the distance and other measurements displayed under your map to determine how far from your building to place your tree(s).
6. If using more of the same species, continue to click on the icon and place trees as necessary, until you’ve placed all of the trees from that species on your map.
7. Repeat steps 4-6 for all of the species included in your project.

Generating your Map

8. After all of your trees have been placed, click on the “3. Estimate Benefits” tab. Enter “60” in the yellow box after “Years:” If you haven’t done so already, click on the plus button at the bottom right of the map screen to make your map as large as possible without cutting off any trees. Before you click “Calculate”, you’ll create your map by doing the following:
 - a. Hold down the “Ctrl” key at the bottom left of your keyboard and press the “P” key;
 - b. Click the “Change” tab under “Destination;”
 - c. Under “Recent Destinations,” select “Save as PDF;”
 - d. Click the “Save” tab;
 - e. Under “File Name,” enter “TFK Map – (your organization/community name)”
 - f. Save to the same location as your other Trees for Kids documents. **You will submit this map as an email attachment with the rest of your application materials.**

Benefits Calculation

9. Once you've generated your map, click the "Calculate" tab. A new window will pop up; click on the sideways-displayed tab on the left of the screen that says "Total (2018-2078)."
 - a. Click the "Stormwater" tab at the top of the screen; indicate the gallons of stormwater intercepted over the next 60 years here: _____
 - b. Click the "Energy" tab and indicate kilowatt hours of electricity conserved _____ and therms of heating conserved _____
 - c. Click the "Carbon Dioxide" tab and indicate reduction in pounds of CO2 here: _____

Saving your File

10. Click on "Save Result" in the top right corner; after "File name dddd:" highlight "myhouse" using your mouse and replace it with "(your organization/community name)" (PLEASE NOTE: you'll need to leave the ".dsgnprj" at the end of your file in order to create a valid, accessible file, such as "CapitolCity.dsgnprj"). Click "Save."
11. **You will need to attach your saved i-Tree file along with this benefits report.** To attach this file to your application email, click the attachment icon on your email window and then select your "Downloads" folder. Look for an icon of a piece of paper with the top right corner folded in followed by the name that you selected for your file ("(your organization/community name).dsgnprj"). Select this file for attachment.

For questions or assistance, please contact Gabbi Edwards, program coordinator, at (515) 725-8456 or Gabriele.Edwards@dnr.iowa.gov