Green Light - Go

TSAMS Requirements

December 11, 2019



Section I – Introduction to TSAMS

TSAMS is a web-based Traffic Signal Asset Management System developed by the Pennsylvania Department of Transportation. TSAMS is available for free to all municipalities in Pennsylvania, but a login is required. TSAMS is available at https://www.tsams.penndot.gov/tsams/login.do.

PennDOT completed a statewide data collection inventory for traffic signals on state roadways in 2016, but the data collection was limited to equipment present at the time of the inventory and doesn't identify the age or condition of equipment.

Beginning in 2018 (Year 5) of the Green Light-Go program, all applicants for funding are required to justify the upgrades proposed under Green Light-Go projects. The required information for a Green Light-Go application to be eligible for funding is established in the <u>Green Light-Go Program Guidelines</u>.

If you have remaining questions after reviewing this guidance, please contact the PennDOT Central Office Traffic Signal Unit resource account at signals@pa.gov.

Section II - Obtaining Access to TSAMS

TSAMS uses PennDOT's Engineering & Construction Management System (ECMS) user accounts. To facilitate management of user accounts by external organizations, ECMS requires user accounts to be created through the organization by the organization's security administrator. Each external organization in ECMS is called a Business Partner, and each Business Partner has a designated security administrator. ECMS Business Partner registration is also used for the ePermitting system, so if your municipality uses ePermitting (also known as EPS) to review Highway Occupancy Permit applications, then the same username and password can be used for TSAMS. However, your user account will need to be given permission to also TSAMS.

A. Step 1 – Determine if your municipality is a PennDOT ECMS Business Partner

Go to https://www.dotdom2.state.pa.us/ECMS/ECMSHome.nsf/frmECMSFrameset?Open using Internet Explorer (note, other web browsers are not fully compatible with site).

In the menu on the left side, click **Business Partner** (#1). Then click **Business Partner Search** (#2).



In the next screen, make the following selection:

- Type: Government Agency
- Doing Business As: Municipality
- Name: enter the beginning of the municipality's name. Note, the search looks for names beginning with whatever search criteria is entered. Sometimes the names are entered as *Anytown Borough*, and sometimes they are entered as *Borough of Anytown*. Please try both formats to find your municipality.

Then click Search.



Following is an example where no results were found.



Changing the search criteria to City of Harrisburg found a matching business partner.



If the municipality is not found doing a Business Partner search, then the municipality will need to register as a new Business Partner. Please skip to Step 6.

If the municipality is found in a Business Partner search, then the municipality is already a Business Partner, so new business partner registration is not required. Please note the six-digit number (with leading zeros) in parenthesis in the first column, which is the Business Partner ID Number (BPID).

If you don't know who the Security Administrator is, proceed to Step 2. If you know the Security Administrator, skip 2 and proceed to Step 3.

B. Step 2 – Determine Security Administrator for ECMS Existing Business Partners

If you don't know who the security administrator is, contact the ECMS Help Desk at 717-783-8330 or toll free at 855-783-8330. You will need to provide the Business Partner ID (BPID) when calling.

After determining the security administrator, proceed to Step 3.

C. Step 3 – Add TSAMS roles to users

User roles may only be added by the municipality's security administrator. You will need to contact your security administrator to request access and provide a copy of these instructions.

The security administrator must use Internet Explorer to navigate to http://www.dot2.state.pa.us/ECMS/ECMSHome.nsf/frmECMSFrameset?Open

Login with username and password in the upper left corner.

Click **Administration** (#1 in the figure below) in the menu on the left, then choose **Application Security** (#2 in the figure below).



To add roles to an existing user, click **User Maintenance** (#3 in the figure above). The list of users within the municipality will be listed. Click on the user's name to edit role. In the next screen, click the **Edit** button to modify user's roles.

At the bottom of this screen, there may be several different areas for access to different PennDOT systems

which use ECMS user accounts.

Click TSAMSBP Security Groups to open the options for TSAMS. If the security administrator doesn't have TSAMSBP Security Groups as an option, refer to Step 5 to add TSAMS to the municipality's business partner registration.

There are two TSAMS roles which can be assigned to municipal users:

- TSAMS Municipality
- TSAMS Municipality management

Those with the Municipality Management role can do everything that those with the TSAMS Municipality role can do, but these users can also associate other business partners such as maintenance contractors or consultants to have permission to modify records for traffic signals in the municipality.

Click the boxes for either Municipal Management or Municipality roles.

Then click Save & Exit button.

			Business Partner User Maintenance
 denotes required fields 			
• User Name:	First Name M	Last Name	Jr
(• first, MI, • last, suffix)			
	717 - 123 - 4567	x	
Fax Number:			
 Email Address: 	email@email.gov		
• User ID:	username	(8 or more positions)	
New Password:	•••••	(6 or more positions)	
Confirm Password:	•••••		
		I	
Check to Grant Group Access an	d un-check to Revoke Group	Access:	
			Clear
⊕ ECMSBP Security Groups:			
⊕ EPSBP Security Groups:			
RASBP Security Groups:			
↑ TCBP Security Groups:			
☐ TSAMSBP Security Groups:			
- 13AM3BF Security Groups.			
☐ MUNICIPAL MANAGEMI	ENT		
MUNICIPALITY			

D. Step 4 - Creating a new user

Login with username and password in the upper left corner.

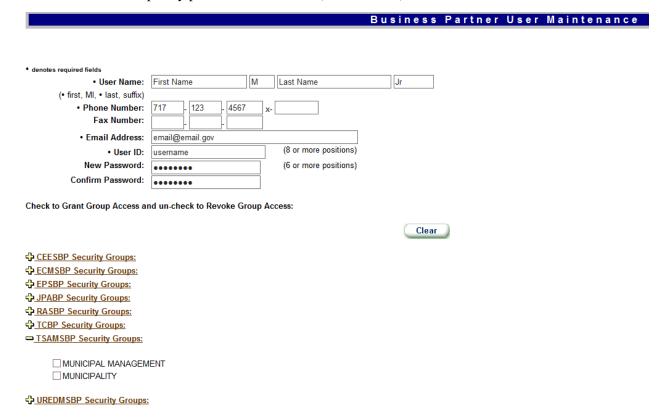
Click **Administration** (#1 in the figure below) in the menu on the left, then choose **Application Security** (#2 in the figure below).



To create a new user, click **Create User** (#4 in the figure above).

Enter the following required information:

- User's full name (separate boxes for first name, middle initial, last name, and suffix)
- User's phone number
- User's email address
- Create a user ID
- Create a temporary password for the user (enter it twice)



At the bottom of this screen, there may be several different areas for access to different PennDOT systems

which use ECMS user accounts.

Click TSAMSBP Security Groups to open the options for TSAMS. If the security administrator doesn't have TSAMSBP Security Groups as an option, refer to Step 5 to add TSAMS to the municipality's business partner registration.

There are two TSAMS roles which can be assigned to municipal users:

- TSAMS Municipality
- TSAMS Municipality management

Those with the Municipality Management role can do everything that those with the TSAMS Municipality role can do, but these users can also associate other business partners such as maintenance contractors or consultants to have permission to modify records for traffic signals in the municipality.

Click the boxes for either Municipal Management or Municipality roles.

Then click **Save & Exit** button.

The Security Administrator should provide the username and temporary password to each user. The user will be required to pick a new password the first time the user logs in.

E. Step 5 – Add TSAMS to an existing ECMS Business Partner Registration

If your municipality is already an ECMS Business Partner, but the Security Administrator isn't able to assign TSAMS roles to users, you will need to request that TSAMS be added to the existing Business Partner registration.

Send a letter on municipal letterhead to <u>RA-pdECMDSecurity@pa.gov</u> requesting to add TSAMS. Be sure to include the municipality's six-digit Business Partner ID (BPID) in the letter. A sample letter is available here: https://www.tsams.penndot.gov/tsams/documents/TSAMS_BP_Sample_Letter.pdf

F. Step 6- Register as an ECMS Business Partner

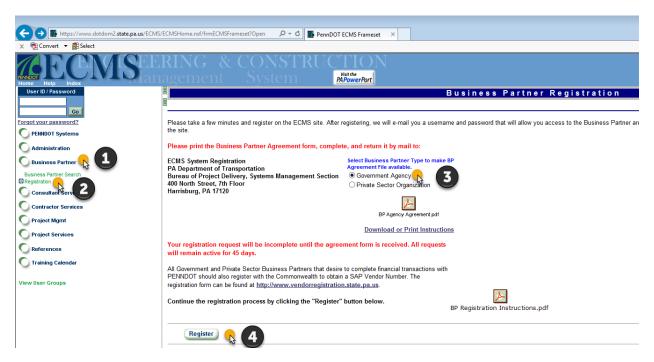
If the municipality is not currently an ECMS Business Partner, you will first need to register as a new Business Partner. The registration includes both an electronic form and a paper agreement. Both parts must be completed for the registration to take effect.

Go to https://www.dotdom2.state.pa.us/ECMS/ECMSHome.nsf/frmECMSFrameset?Open using Internet Explorer (note, other web browsers are not fully compatible with site).

In the menu on the left side, click **Business Partner** (#1 in the figure below). Then click **Registration** (#2 in the figure below).

In the screen that comes up on the right side, click **Government Agency** (#3 in the figure below). (Do not choose Private Sector Organization or you will sign the wrong agreement).

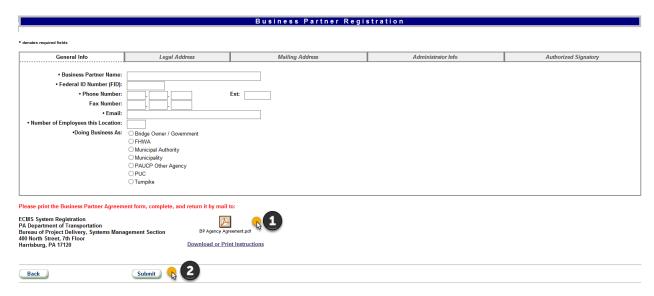
After clicking Government Agency, click the **Register** button at the bottom of the page.



There are five tabs on the next page which need to be completed. Be sure to enter the information in each tab:

- General Info
 - Be sure the **Business Partner Name** exactly matches the official legal name of the municipality.
 - Select Municipality in the Doing Business As section
- Legal Address
- Mailing Address
- Administrator Info
 - The Administrator is the individual who will be responsible for creating additional user accounts. It is recommended the Administrator be an employee of the municipality who maintains regular office hours.
- Authorized Signatory
 - The Signatory Name must match the name of the person who signs the paper agreement and the signatory must have been granted authority to sign by resolution of the municipal governing body

Click the PDF icon for the BP Agency Agreement (#1 in the figure below). Print the agreement and fill it out in accordance with the instructions provided. Note the special requirements for a resolution of the municipal governing body. Mail the original agreement with resolution (if required) to the address indicated on the agreement.



Click the **Submit** button to submit the electronic portion of the registration.

The administrator will be notified by email when the agreement and registration is approved. This normally takes a few weeks.

Section III - Entering GLG Information in TSAMS

The information required in TSAMS to justify the work proposed in the Green Light-Go application is provided in the following table, which is reproduced from the <u>Green Light-Go Program Guidelines</u>:

	Required TSAMS information						
Duois at True	Installation	Component	Manufacturer	Traffic Signal	Latest Permit		
Project Type	Date ^{1, 2}	Type ²	& Model ²	Systems ³	Revision Date		
LED Replacement	X	X					
Traffic Signal Retiming					X		
Study and Removal of							
Unwarranted Traffic-							
Control Signals					X		
Monitoring			$X^{4,5}$	X			
Innovative Technologies			$X^{4,5}$	X			
Communications			$X^{4,5}$	X			
Connections back to							
TMC			X^4	X			
Detection and/or							
Controller Upgrades	X	X	X^2				
Modernization Upgrades	X				X		
ITS Applications							

¹Installation date may be approximated if the exact date is unknown.

Login to TSAMS at https://www.tsams.penndot.gov/tsams/login.do. If you don't have a username to login, please refer to Section II to obtain access.

²Current information required for component(s) to be upgraded and/or replaced

³Traffic signal systems shall include connections between signals and the type of communication.

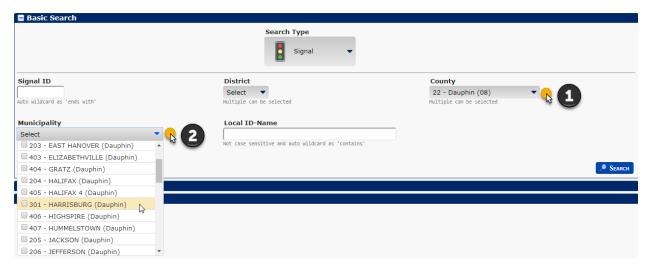
⁴Manufacturer & model information for controller (timer) unit required.

⁵Manufacturer & model information for vehicle detection component(s) required.

After logging in to TSAMS, search for the signals in your municipality by clicking on the magnifying glass under the Signal icon on the home page:

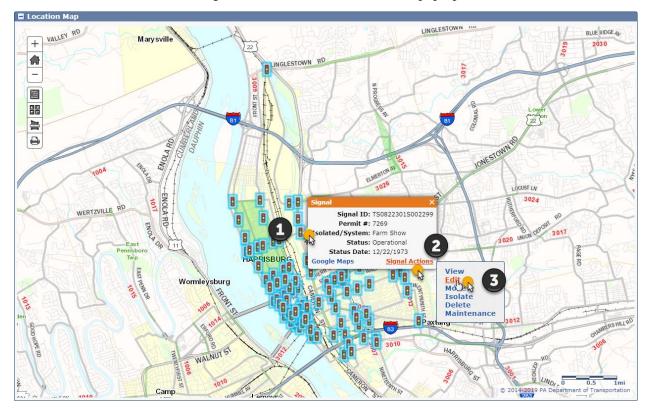


On the next screen, first select your county, then select your municipality from the drop down lists, then click **Search.**



In the Basic Search Results, you can either select the intersection from the table, or click **Location Map** to find the intersection on a map. Note the list displays 25 intersections per page by default.





From the list view, click on the Signal ID then choose Edit from the pop-up menu.

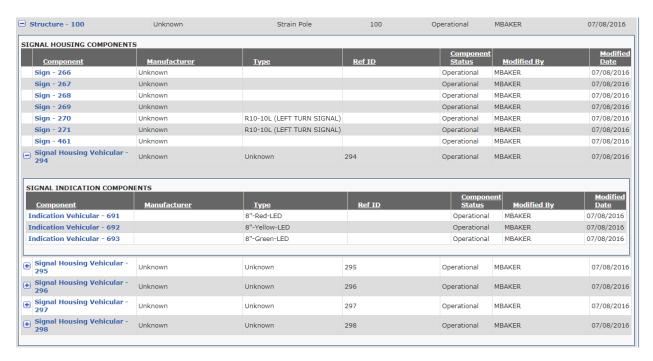
If you use the Location Map, first click on the signal on the map, then click on **Signal Actions** from the pop-up balloon, then click on **Edit** from the pop-up menu.

The following sections refer to how to enter specific information requested in the <u>Green Light-Go</u> <u>Program Guidelines</u>.

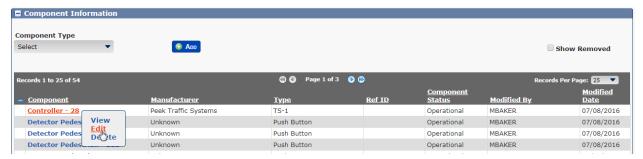
A. Adding and Editing Components

From the Edit Signal screen, scroll down to **Component Information** and click on the banner to open the section. Any components which have been inventoried for the signal are listed in a table. Note the table displays 25 components per page by default. You can click the right arrow to see additional pages or increase the results per page.

Signal housings and structure-mounted signs are in a tree view under the structure to which they are attached. Click the + button next to the structure to find these components. Signal indications are in a tree view under the signal housing in which they are located. Click the + button next to the signal housing to view these indications.



If the component you are proposing to upgrade as part of the Green Light-Go application is listed, then click on the component name/number in blue, and choose **Edit** from the pop-up menu.



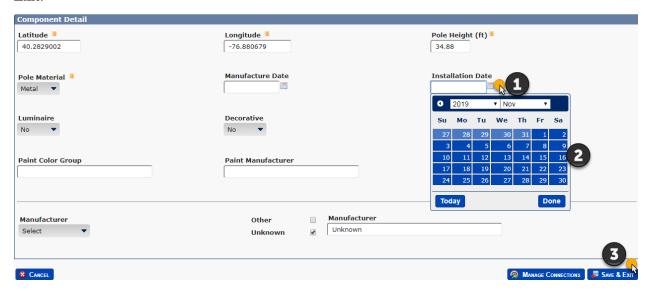
If the component you are proposing to upgrade as part of the Green Light-Go application is not listed, then select the Component Type from the drop-down list and click **Add** to create a new component.



B. Installation Date

Edit an existing component or add a new component as described in Section A above.

In the Edit Component window, find the **Installation Date** box and enter a date by clicking the calendar icon next to the box. Click a date in the calendar. If the exact installation date is unknown, an approximate date can be entered. If the date is approximated, it is recommended to use the first of the month if you know the month. If you don't know the month, use January 1 of the approximate year. You may also enter a note in the Comments box to indicate the installation date is approximate. When finished, click **Save & Exit**.

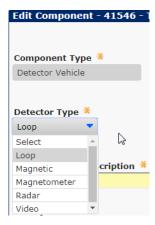


Please note, components proposed to be upgraded which have a blank installation date will not be eligible for Green Light-Go funding.

C. Component Type

Edit an existing component or add a new component as described in Section A above.

A type dropdown will display depending on the type of component. An example for detectors is shown on the following figure. Choose the appropriate type, then click **Save & Exit**.



D. Manufacturer & Model

Edit an existing component or add a new component as described in Section A above.

TSAMS will pre-populate a drop-down list of manufacturers based on approved products listed on Bulletin 15 based on the component type (see Section C above to select the component type first). If the manufacturer of your component is listed in the drop-down list, select it then click **Search**. This will find all of the PennDOT-approved products from this manufacturer. If your product appears in the search grid, click the checkmark next to it and then click **Save & Exit.**



If your component manufacturer or model is not listed, then click the box next to **Other** and enter the Manufacturer and model # is the text boxes provided. Then click **Save & Exit.**



Please note, components which have the **Unknown** box checked will not be eligible for Green Light-Go funding.

E. Traffic Signal Systems

The Basic Search Results table shows whether a signal is Isolated or part of an existing system in TSAMS.

If the signal is already part of a system, then click the System Name in the Basic Search Results and then click **Edit** in the pop-up menu to edit the system.



If the signal is Isolated, but you want to add it to a system that already exists in TSAMS, click on the Signal ID and choose **Move** from the pop-up menu.

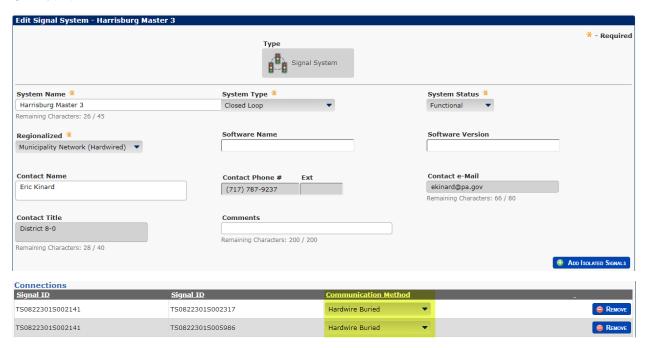
If you use the Location Map, first click on the system on the map, then click on **Signal System Actions** balloon, then click on **Move** from the pop-up menu.



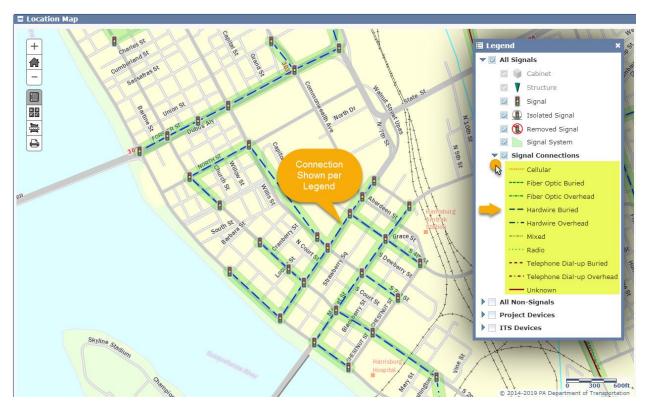
On the next screen, select the county and municipality and click **Search.** Then from the list of systems, click the **Select** button for the system for which you want to add the Signal.

If you need to create a new system which doesn't currently exist in TSAMS, please contact your PennDOT District Traffic Signal Unit, or contact the Central Office Resource Account (signals@pa.gov).

In the Edit Signal System screen, verify the information including **System Type** and **Software Name**. Scroll down to the **Connections** section and verify the **Communication Method** is correct and is not Unknown.



The Location Map can be opened from the Edit Signal System screen, which can be helpful to verify connections. Click the triangle next to Signal Connections in the legend and zoom in to view connections.



If communication connections are missing, create new connections by click on the rows in the list of signals above for the two signals which are connected. When you select the first signal, it will have a gold background. Then click on the signal to which it is connected.



After clicking two signals, these will be added to the connections table and highlighted in a green box. Select the Communication Method from the drop down list.



F. Latest Permit Revision Date

From the Edit Signal screen, scroll down to **Permit Information** and click on the banner to open the section. The list of permit revision dates appears in a table. If the latest permit revision date is not in the

table, enter a new date by clicking the calendar next to **Permit Revision Date** and choose the correct date. Then click **Save & Exit** at the bottom of the screen.





Frequently Asked Questions

- 1. Can I have my consultant or maintenance contractor enter the information required in TSAMS for my Green Light-Go application? Yes. The current recommended approach is to create a user account for contractors and/or consultants within your business partner organization (refer to Section II, Step 4).
- 2. My password expired. How do I reset it? Using your web browser, go to https://www.dotdom3.state.pa.us/ECMS/ECMSHome.nsf/frmECMSFrameset?Open. Enter your user ID and old password in the login area in the upper left corner of the screen. You will be prompted to reset your password. After changing your password, you can return to TSAMS and login with the new password.
- **3.** Why does my password expire every 60 days? This is required by Commonwealth policy and we are unable to change this requirement.
- 4. Why is updating information in TSAMS requested? Do I need to attach this information to my application? In order to demonstrate a project meets the eligibility requirements, existing asset information for the traffic signal(s) to be upgraded shall be up to date in TSAMS. PennDOT completed a statewide data collection inventory for traffic signals on state roadways in 2016, but the data collection was limited to equipment present at the time of the inventory and doesn't identify the age or condition of equipment. Additional information in TSAMS is required to justify the upgrades proposed under Green Light-Go projects, as indicated in the table in Section III and the Green Light-Go Program Guidelines.
- 5. Do I have to attach the TSAMS information to my Green Light-Go application?

 Information updated in TSAMS does not need to be attached to the application. TSAMS is the statewide asset management system for traffic signals. By entering information about existing traffic signal equipment in TSAMS, the data is available for other uses without requiring it to be

- reentered in multiple locations. PennDOT will pull the information directly from TSAMS as part of the review of your Green Light-Go application.
- 6. Do I have to update everything for all of the traffic signals in my municipality? For Green Light-Go applications, only traffic signals which are part of the project and the components which are proposed to be upgraded need to be updated in TSAMS. Municipalities are encouraged to utilize TSAMS for other record-keeping, but it is not currently required.