



BPW-5

## CITIZENS' ADVISORY COMMITTEE ON MEASURE Z EXPENDITURES

(Advisory Committee will make recommendations to the Humboldt County Board of Supervisors as to expenditure of funds derived from *Measure Z*.)

### APPLICATION FOR FUNDING

Agency Name: County of Humboldt- Public Works  
Mailing Address: 1106 Second Street, Eureka CA 95501  
Contact Person: Tom Mattson Title: Public Works Deputy Director  
Telephone: 707-445-7491 E-mail address: tmattson@co.humboldt.ca.us

1. AMOUNT OF MEASURE Z FUNDING REQUESTED FOR FY 2017-18: \$ 80,000

2. ENTITY TYPE -- Please check appropriate box.

- |   |                          |
|---|--------------------------|
| a. Humboldt County Department                   | X                        |
| b. Contract Service Provider to Humboldt County | <input type="checkbox"/> |
| c. Local Government Entity                      | <input type="checkbox"/> |
| d. Private Service Provider                     | <input type="checkbox"/> |
| e. Non-Profit Service Provider                  | <input type="checkbox"/> |
| f. Other  | <input type="checkbox"/> |

RECEIVED  
FEB 17 2017  
CAO

3. Please provide brief description of proposal for which you are seeking funding.

We are seeking funds for Traffic Signal Battery Backup Systems for the County's signalized intersections. Traffic Signal Battery Backup Systems increase the public safety and reduced traffic congestion by allowing traffic lights to function even during a power failure. With Battery Backup Systems, the traffic control signals can continue to operate. This seamless switchover to battery power increases public motorist safety and eliminates the need to dispatch service personnel to direct traffic. The Week of February 6<sup>th</sup> through the 10<sup>th</sup>, Central Avenue in Mckinleyville had three power outages causing the signal lights to be without power long enough to shut down the control box. Once the power is restored, the intersection has to "cycle through" one cycle as a system diagnostic. This is a system check to be sure all the parts are operational. Unfortunately, this makes the red lights longer, green shorter and causes traffic to backup. Though one cycle is 90 seconds; most motorists do not want to wait and run the red light causing accidents and frustration. With Traffic Signal Battery Backup the lights would continue as nothing happened and would be safer for motorists and the public.

We currently have Traffic Signal Preemption for Emergency Vehicles (EV system) on all our signalized intersections. During a power outage the EV system does not operate. This confuses drivers and does not clear traffic for Emergency personnel. With the Traffic Signal Battery Backup the EV system would be triggered when the Emergency responders are within the zone and clear traffic for the responders.

4. Measure Z funding is scheduled to "sunset" in 2020. How are you developing a plan for sustainability, including diversification of funding sources, in order for your proposal to carry on without reliance on future Measure Z funds?

Once the Traffic Signal Battery Backups are purchased and installed into the control cabinets, they are reasonably maintenance free. Staff would maintain these devices as part of an ongoing preventative maintenance schedule. Funding for Traffic Signals is out of the General Roads Fund. We currently look into other funding avenues to upgrade and maintain Traffic Signals.

5. If this request is for the continuation, or expansion, of an existing program/service, what is the current source of funding for that program/service?

The current funding for Traffic Signal Maintenance and upgrades comes out of the General Roads funds. These funds are used sparingly for Traffic Signal operations and maintenance. We look into other grants and avenues to upgrade our current systems.

6. If you are awarded Measure Z funds, how will you use them to leverage additional grants, contributions, or community support?

If we are granted the funds for the Traffic Signal Battery Backup, it will be one step closer to getting the control boxes upgraded and bringing our Traffic Signals current. We are looking into funding for upgrading all of the signalized intersections. The Battery Backup is one step closer to getting better equipment for traffic safety.

7. Will this proposal require new or expanded activity on the part of another entity to be fully functional and effective? If so, please describe.

No, we would not need expanded or added activity. If we are granted the funding it would actually be a cost savings. It would also reduce costs related to Police/Traffic Services for traffic control at intersections where the traffic signal equipment is not operational. Currently, if there is a power outage at a signalized intersection; our technician has to be called out and either direct traffic or put up traffic control. The technician is also called back to check the controller box and intersection once the systems starts it's diagnostic. If we put in the Battery Backup systems, our technician would not be called out and accrue the costs.

**ATTACHMENTS—Please include the following with your application**

**Proposal Narrative:** Brief description of your request for Measure Z funds – Please explain how it is an essential service or for public safety. (one page maximum)

**Prior Year Results:** If your request is a continuation of a program funded with Measure Z in prior fiscal years, please provide the results of implementation. (one page maximum)

**Program Budget**

**I declare under penalty of perjury under the laws of the State of California that the above statements and all attachments are true and correct**

DATE: \_\_\_\_\_

7/16/17

SIGNATURE: \_\_\_\_\_



## **Measure Z Narrative for Traffic Signal Battery Backup**

Humboldt County has nine signalized intersections in McKinleyville and three in Eureka. The McKinleyville signalized intersections do not currently have Traffic Signal Battery Backups. When a power outage occurs the signal lights do not function and this puts the public in jeopardy. The Traffic Signal Battery Backups would make a seamless transition and keep the signals operational. Central Avenue in McKinleyville supports most of the County's signalized intersections. In 2016, there was 19 accidents just along Central Avenue, resulting in nine injuries and one death. Four of those traffic collisions were directly related to the traffic signals.

The intersections currently do not have Traffic Signal Battery Backup and experience reoccurring power issues. Power issues can damage signal equipment, render the Traffic Signal Preemption for Emergency Vehicles nonfunctional and can cause traffic signals to go dark. Some examples of power issues include failures (blackouts), voltage sags and surges, brown outs (under voltages) and over voltages. Power failures require Traffic Technicians to respond to emergency calls, placing the traveling public in less orderly traffic control situations; and result in increased delays, driver frustration, and possibly crashes. Installing Traffic Signal Battery Backup systems at locations where there have been power issues helps reduce down time and electrical damage to equipment. A signalized intersection that is equipped with Traffic Signal Battery Backup can continue to operate through short-term power losses. Maintaining the green, yellow, and red signal operation through power outages is very beneficial in reducing problems with congestion, substantial delay, and safety. The Emergency Preemptions System is imperative for the responders to get to an emergency in a timely and safe manner. The Traffic Signal Battery Backups would insure that the Preemption System is enabled and ready to work.

A signalized intersection that is equipped with Traffic Signal Battery Backup can continue to operate smoothly without interruptions. The current locations that would need Traffic Signal Battery Backup would be:

Central Avenue and Railroad Avenue

Central Avenue and Pickett Road

Central Avenue and Hiller Road

Central Avenue and Heartwood Drive

Central Avenue and Sutter Road

Central Avenue and School Road

Central Avenue and Anna Sparks

Central Avenue and Gwin Road

By installing the Traffic Signal Battery Backups on the signalized intersections it would increase traffic functionality and public safety. The Traffic Signal Battery Backups would also be decreasing maintenance costs, time and labor of a technician to come out during a power outage and make the Preemption System operational.

Budget  
County of Humboldt Department of Public Works

Date: 2/14/17

Descriptions	Amounts	Approved Budget	Remaining Balance
<b>A. Personnel Costs</b>			
Title: Salary and Benefits Calculation:  Duties Description:			0.00
Title: Salary and Benefits Calculation:  Duties Description:			0
Title: Salary and Benefits Calculation:  Duties Description:			0
Title: Salary and Benefits Calculation:  Duties Description:			0
<b>Total Personnel:</b>		0.00	0.00
<b>B. Operational Costs (Rent, Utilities, Phones, etc.)</b>			
Title:  Description:			_____
<b>Total Operating Costs:</b>		0	0
<b>C. Consumables/Supplies (Supplies and Consumables should be separate)</b>			
2186 Title: Traffic Signal Maintenance  Description: Traffic Signal Battery Backup hardware & installation material	80,000		_____
Title:  Description:			_____
Title:  Description:			_____
Title:  Description:			_____
<b>Total Consumable/Supplies:</b>		80000	0

Budget  
County of Humboldt Department of Public Works

Date: 2/14/17

\_\_\_\_\_  
\_\_\_\_\_

Descriptions	Amounts	Approved Budget	Remaining Balance
<b>D. Transportation/Travel (Local and Out-of-County should be separate)</b>			
Title:			
Description:			
Title:			
Description:			
Title:			
Description:			
<b>Total Transportation/Travel Costs:</b>		<b>0</b>	<b>0</b>
<b>E. Fixed Assets</b>			
Title:			
Description:			
Title:			
Description:			
<b>Total Other Costs:</b>		<b>0</b>	<b>0</b>
<b>Total:</b>		<b>80,000.00</b>	