

## Plan Overview

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*A Data Management Plan created using DMP Tool*

**Title:** BSOOB Transit Smart Grid Transition

**Creator:** Marianne Walters - **ORCID:** [0009-0007-6555-4345](https://orcid.org/0009-0007-6555-4345)

**Affiliation:** United States Department of Transportation (DOT) ([transportation.gov](https://www.transportation.gov))

**Project Administrator:** Marianne Walters

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**Project abstract:**

Demonstrate renewable energy production, on-site energy storage, and electricity load management for BSOOB Transit.

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## **BSOOB Transit Smart Grid Transition**

### **Data Collection**

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#### **What data will you collect or create?**

Cost per mile to operate diesel fueled buses.

Cost per mile to operate BEB.

Cost of electricity to operate depot.

Reduction in GHG emissions when transitioning from diesel fleet to BEB fleet.

Reduction in labor costs to operate BEB.

Reduction in parts costs for electric fleet.

Cost to operate on-site microgrid.

#### **How will the data be collected or created?**

Much of the data is currently being collected as part of our operations and administrative tasks. As we migrate towards an electric fleet, we will be collecting more data about fuel, parts and labor costs. The consultants hired to do the microgrid planning will provide anticipated costs of operating a microgrid specific to our site.

The consultants will be able to compute the decrease in CO<sub>2</sub> and other greenhouse gasses that were being produced by the diesel fueled buses.

### **Documentation and Metadata**

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#### **What documentation and metadata will accompany the data?**

Internal systems generate data to chart mileage and fuel consumption. CMP, our electricity provider, issues a monthly bill with KW hours used for both depot operations and BEB chargers.

Internal systems generate data to track labor hours and costs of materials.

Consultants will provide data to document the decrease in GHG and air pollutant emissions.

## **Ethics and Legal Compliance**

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### **How will you manage any ethical issues?**

We don't anticipate any ethical issues with CMP as they are the electrical provider in Southern Maine.

The consultants will be bound by contract to provide accurate information regarding GHG and air pollutant emissions.

BSOOB Transit employees are trained to enter and record data according to established procedures.

### **How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?**

BSOOB Transit is a public entity and most of our data is open to the public.

## **Storage and Backup**

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### **How will the data be stored and backed up during the research?**

Data will be stored within the existing office systems. Our IT department will maintain data, files and storage requirements on Sharepoint.

Once the microgrid is installed, we will continue to use the best practices available for those systems.

### **How will you manage access and security?**

There will be policies in place for who has access to data.

Any data collected in the field will be transferred to our secured systems by well trained and trusted individuals.

## **Selection and Preservation**

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### **Which data are of long-term value and should be retained, shared, and/or preserved?**

The data collected to support the installation and use of a microgrid will be retained for reporting and illustrative purposes.

The foreseeable research uses for the data will be useful to any entity looking to install a microgrid or to transition to an electric fleet. Considering that BSOOB Transit is a small transit agency, the data can easily be extrapolated to use with similar sized applications or for larger entities.

The data will be retained and preserved indefinitely.

### **What is the long-term preservation plan for the dataset?**

We will determine the best repository for the data and project documentation.

## **Data Sharing**

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### **How will you share the data?**

The data will be shared with whomever requests it. We are a public agency and reporting on fuel usage is covered in our board meetings and reports. Once the microgrid is installed and functioning, we will be sharing that information as well. The SMART grant program will provide guidance on how to showcase our achievements.

### **Are any restrictions on data sharing required?**

We do not anticipate any restrictions to the use of data generated by the SMART grant microgrid project.

A microgrid feasibility study and pending implementation plan will be an accomplishment for other transit providers and fleet operators to learn from and improve upon. BSOOB Transit is interested in sharing all that we learn, all that we do, and all that we accomplish through this program.

## **Responsibilities and Resources**

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### **Who will be responsible for data management?**

The DMP will be reviewed and revised by Chad Heid, the Executive Director of BSOOB Transit.

DMP implementation will be done by BSOOB Transit staff. The project consultants may contribute to data management activities. This will be worked out as we proceed with contract negotiations. We are currently interviewing potential consultants to work with us on this project.

### **What resources will you require to deliver your plan?**

The SMART Grant 1 planning stage will require that we hire a consultant group to work out the microgrid plans.

Once we receive the SMART Grant 2 implementation grant and proceed with the microgrid project, we will require hardware and software that is specific to the microgrid operations.

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