

## **Frequent Questions for Tribes – FY20**

### ***Exchange Network Grants***

#### **What is the Exchange Network (EN)?**

The EN is an internet-based approach for securely exchanging environmental data among partners (e.g., EPA, states, tribes and territories) and with the public (e.g., community members, emergency managers, etc.).

It facilitates environmental data sharing among EPA, states, tribes and territories. The EN:

- Facilitates the sharing of environmental data, especially through shared and reusable services;
- Streamlines data collection and exchanges to improve timeliness for decision making;
- Increases the quality and access to environmental data;
- Reduces burden and costs for co-regulators and the regulated community; and
- Supports better decisions on environmental and health issues.

#### **How does the EN support tribal environmental management?**

The EN can help tribal partners to:

- Increase capacity to collect, analyze, and share data
- Increase access to environmental and health related information
- Improve characterization of environmental conditions on tribal land and identify resources needed to address issues
- Facilitate information sharing within a tribe's agencies, with other tribes, states and the federal government
- Expedite sharing of environmental data with emergency managers and community members
- Identify and take advantage of tools and resources already created by other EN partners to meet their Information Technology/Information Management needs
- Improve data management
- Support collection and management of credible data to assist the tribe with environmental decision-making and in addressing environmental issues more broadly
- Support compliance with federal regulations

## How can a tribe get involved in the EN?

There are many ways for tribes to get involved in the Exchange Network. Tribes in any stage of information management program maturity may apply for Exchange Network grants to build the tribe's capacity to share environmental information with EPA, other EN partners, and the public. Tribes can apply for individual projects or can partner with a more experienced tribe. Tribes can also visit <http://www.tribalexchangenetwork.org/> for more information, [subscribe to the tribal list serve](#), or [subscribe to EN alerts](#). Tribal representatives can seek assistance from or volunteer to join the EN Tribal Governance Group. Tribes may also [contact Lydia Scheer](#) ([lydia.scheer@nau.edu](mailto:lydia.scheer@nau.edu)) with the Institute for Tribal Environmental Professionals (ITEP) with EN questions. Interested tribes can also participate in open calls or EN-related meetings and conferences on topics of interest hosted by the TGG or announced via network alerts.

## How have tribes used Exchange Network (EN) Grants in the past?

Tribes use EN grants to meet the information management and sharing needs of their tribe to support and improve environmental decision-making. Below are some examples of how tribes have used EN grants:

- Develop the technological foundation of a continuous water quality monitoring system in areas of past water quality problems, that now serves as an early detection system for impending water quality issues.
- Provide understandable summaries of water quality data to citizens and partner with a local school to empower and create future environmental leaders.
- Provide the foundation to collaborate with other tribal nations to help build tools that allow for better environmental management within each tribe's jurisdiction.
- Develop tools to manage and monitor water quality as well as facilitate data exchange and analysis to help examine how environmental stressors are affecting wild rice resources across the region.
- Develop geospatial data layers and an application to allow for faster and more effective data sharing for quicker emergency response and recovery.

## How do I apply for an EN grant?

Tribes interested in applying for an EN grant should [download the Solicitation Notice](#). The notice identifies EPA's grant program priorities and the types of assistance agreements that are available, provides application instructions, optional templates, and includes evaluation criteria used to score the applications. In addition to the notice, EPA has posted [other documents to assist applicants](#) in preparing successful applications. These documents provide an overview of the notice, as well as tips and tricks for preparing high scoring applications.

## **What projects are eligible for an EN grant?**

Section I-E of the [Solicitation Notice](#) presents EPA's annual grant program priorities. These priorities describe general categories of projects that are eligible for funding, as well as specific opportunities. Appendix A includes additional program-specific activities for which applicants can seek funding. Appendix B details projects which incorporate Exchange Network (EN) Shared Services, while Appendix C describes capacity-building projects which may fund activities such as developing a back-end database or implementing an intra-tribal data exchange.

## **How Can My Tribe Apply for an EN Grant?**

Tribes can apply for resources as an individual applicant or as a partnership. The funding limit on individual grants for FY 2020 cycle was \$200,000. Tribes can also apply for EN grants as a partnership. The funding limit for partnership grants for the FY 2020 cycle was \$400,000. Inter-tribal Consortia are eligible to apply for individual opportunities. However, if Inter-tribal Consortia are applying as a partnership, they must partner with at least one partner that is not a member of the consortia.

## **Can tribes request basic grants training from EPA? If so, what is the process for requesting training?**

**YES.** There are training opportunities for tribal grantees and potential applicants during the year. The Office of Grants and Debarment at EPA holds sessions for applicants throughout the year on various topics related to grants management, new regulations, EPA policies etc.

### ***EN Grant Specific training:***

After posting of the Exchange Network Grant Program Solicitation Notice, EPA holds webinars on writing an Exchange Network (EN) grant application. EPA's Regional Exchange Network Coordinators hold conference calls and meetings with grantees throughout the year. EPA also has a cooperative agreement with the Institute for Tribal Environmental Professionals (ITEP) to support tribal participation in the EN. Tribes may also [contact Lydia Scheer](#) ([lydia.scheer@nau.edu](mailto:lydia.scheer@nau.edu)), ITEP, with EN questions.

## **If I have questions while completing my EN grant application, who can I contact?**

Applicants with questions about eligibility can contact EN Grant Program Manager Erika Beasley ([beasley.erika@epa.gov](mailto:beasley.erika@epa.gov)) at (202) 566-2530.

## **Are tribes limited to a percentage of EN grants funding annually?**

**NO.** EPA remains committed to awarding tribal assistance agreements equal to approximately 10 percent of the appropriated funds. The amount awarded to tribes may be greater than this, depending on the final appropriated amount for grant programs, the number of applicants, proposed project budgets, the merit of tribal applications, and on the competitive review of all applications.

## **How many EN grants have tribes received?**

Since 2002 EPA has awarded 194 Exchange Network grants for \$38 million to tribes.

## **What are the EN grant program funding priorities?**

The EN grant program announces the funding priorities each year in Section I-E of the [Solicitation Notice](#). EPA develops EN grant program priorities in consultation with EN/EE governance bodies and the Tribal Governance Group (TGG).

## **What are EN Phase 1 projects and does the EN Grant Program still fund them?**

In Phase 1 of the Exchange network, there was a focus on building physical nodes in all 50 states and interested territories and tribes. EN grants no longer fund the development of physical nodes, as the EN began migrating to Virtual Exchange Services (VES). VES is one of the FY 2020 EN grant opportunities found in Appendix B of the FY 2020 EN Grant Solicitation Notice.

## **Does the EN grants program fund Operations & Maintenance costs?**

**NO.** EN grants do not fund operations and maintenance costs because these costs would overwhelm the program's grant resources. Instead, EPA encourages EN partners to use media program grant funds to support operations and maintenance. EPA understands that operations and maintenance expenditures are of concern to tribes and EPA has tried to address those concerns by establishing Virtual Exchange Services (i.e., virtual node) to minimize the need. The following costs are also not allowable: construction costs, workshops and conferences, pre-award costs, management fees, or the development and deployment of partner nodes. EPA includes definitions of operations and maintenance in the solicitation notice.

## **What has EPA done to address Operations & Maintenance concerns regarding EN grants? Where can I find additional information on this topic?**

EPA realizes that Operations and Maintenance is a main concern of our tribal stakeholders. While we cannot fund activities that are considered operations and maintenance, we have tried to alleviate these concerns by implementing [Virtual Exchange Services or VES](#) (i.e., virtual node). VES are free to use and grantees would not have to develop their own node to exchange data. Also see answer to FAQ directly above.

## **What is SSRC and how does it help me?**

The Shared Services Resource Catalog (SSRC) is part of EPA's System of Registries. It is both a catalog of EPA, state, tribal and territory services and a registry of widgets, plug-ins, web services and many other resources which can be reused by others. SSRC has a searchable interface with which users can search for existing data and IT assets, grouped by resource types of similar assets. Interested parties are encouraged to visit the [Shared Services Resource Catalog \(SSRC\)](#) to search for project-appropriate tools, reusable components and services, EN peer contact information, and potential grant mentors.

SSRC also houses the records of any EN resources that have been registered in accordance with the EN grant program's requirement for applicants to register any newly developed resources (required since 2011) and the reuse of existing resources (required since 2018). At the time of grant close-out, Exchange Network grantees work with their Regional Exchange Network Coordinator (RENC) to complete a webform which is used to create a record in SSRC.

Any data flows, EN services, and other IT resources previously registered in the now-retired Reusable Component Service (RCS) Inventory System have been migrated to the SSRC.

## ***Exchange Network Technical Topics***

### **What is a node?**

A Node or Network Node is a computer running specialized software that initiates and responds to requests for environmental information from Exchange Network partners. The requests and responses use common formats expressed in eXtensible Markup Language (XML) and conform to the Exchange Network protocol and specifications. A Node can initiate the submission of data, request data from another node, and respond to a request for data from another node or an application making a data query over the network. Sending data in response to a query is known as publishing. Nodes allow for machine-to-machine communications, which means that data exchanges can be automated. A node has an administrative interface that lets its owner configure and operate it.

## What is a node client?

A node client is a software application that allows a user to send data to Exchange Network nodes using Exchange Network services but cannot listen to requests or other messages coming from nodes. It allows for human-to-machine communication as opposed to machine-to-machine communication. Node clients are easy to install and use and are available in .NET and JAVA versions. A Node Client Developer Kit (SDK Software) simplifies integrating Node client functions (web service calls) into any software application with just a few lines of script.

Examples of clients include:

- Exchange Network Service Center
- Windsor Client
- CDX JAVA Client
- Homeland Emergency Response Exchange (HERE)

## What is the Exchange Network Services Center?

[The Exchange Network Services Center \(ENSC\)](#) is a web-based tool designed to allow Exchange Network users to easily send, get, and download information from other partners on the Exchange Network. This website is a:

- [“No Frills” web access to Exchange Network services](#)
- Simple, easier-to-use and more intuitive site designed for the less technical program user and more advanced technical users
- More personalized experience that allows you to quickly access the services and data that you use most often

## What are Virtual Exchange Services or VES?

Virtual Exchange Services are EPA cloud-based services that support all the functions of a Network Node. VES can host any number of state, tribal, and territory partner data exchange activities and provide all the same services as a traditional Exchange Network node. The VES environment is maintained by EPA while each partner can be provided a secure tenant to configure and implement fully functional data flows with no coding required. Currently, there are no costs to Exchange Network partners for the use of VES other than the charges incurred for partners to implement data flows in their environment (e.g. mapping data, database enhancements, local security requirements). EPA maintains the dataflow templates that allow users to import each dataflow and avoid coding, installation and hardware and software costs for the data exchange process. Partners will have to complete the following tasks:

1. Create a staging database (format and install code provided on the site)
2. Push data into the staging database that is to be exchanged
3. Set-up the Internet service bus connection (documented on the site)

For more information, see: [Virtual Exchange Services](#)

## How does VES help EN grantees?

- Provides simple, low cost access to Exchange Network services needed to share environmental data with EN partners. Virtual nodes are free to use, eliminating the need for partners to spend limited resources on deploying, operating and maintaining their own node hardware and software
- Provides the same services (e.g., automated machine-to-machine) communication as a locally deployed node
- Enables partners to setup a new node with a simple web configuration form
- Eliminates node management; EPA centrally manages, secures and services VES
- Simplifies establishment of new data flows using templates
- Allows partners with existing nodes to operate existing data flows on their nodes and simultaneously establish new flows using VES, migrating existing flows to VES as needed
- Automates registration of new services and data flows with Exchange Network Discovery Services

## Are there limitations on who can implement VES?

Certain technical requirements are necessary for successful implementation of VES:

<b>Technical Requirements</b>	
<b>Machine</b>	Windows 64-bit Internet connected computer with modern web browser.
<b>Database</b>	SQL Server Express Edition, SQL Server, Oracle
<b>Connectivity</b>	Internet Service Bus (ISB)
<b>Technical Skill</b>	Database processing to move data from source(s) into staging database.
<b>Additional</b>	Tool or process to map data into staging table

## **What is the difference between ENSC and VES? Which should I use?**

To help determine which is the right option for your organization, the [VES/ENSC Decision Tree](#) was created to guide partners to the best solution. More information and resources to help your organization decide are available at [Virtual Exchange Services](#).

## **Can I choose to build my own node and not use VES or ENSC?**

**YES.** EPA, however, no longer provides grant funding to build and deploy physical nodes. Furthermore, the Agency does not provide funding for node operation and maintenance.

## **If I have a traditional node, can I continue to use it and receive grant funding under the EN Grant Program? If not, how do I transition to a virtual node and virtual services?**

**YES.** EN Partners that have their own nodes can apply for grant funding to deploy new data exchanges or for data publishing projects that use their own node. EPA, however, provides funding for partners that wish to transition from their own physical nodes to Virtual Exchange Services (VES) and encourages partners to do so because VES is significantly less costly. Please see Appendix B of the FY 2020 EN Grant [Solicitation Notice](#) for VES funding opportunities.

## **Would an expense such as node maintenance or server upgrades (operations & maintenance) be considered allowable costs under another funding program (e.g., for an air monitoring project under Clean Air Act 103 grant funding)?**

**YES.** Typically, program grants can be used to defray program implementation expenses including data reporting to EPA. Operations and maintenance expenses associated with reporting data to EPA are considered to be program implementation costs.



## ***Cybersecurity***

### **What is the Cybersecurity term and condition for EPA assistance agreements?**

Cybersecurity includes policies, procedures and technologies that ensure data confidentiality, integrity and availability. As part of EPA's cybersecurity efforts, the Agency wants to ensure that its partners are protecting their data and ensuring that network connections between partners and EPA are also secure. Consequently, EPA has added a new Cybersecurity Term and Condition to all assistance agreements, including agreements with tribes. The tribal term and conditions require that the recipient follow all applicable tribal law and policy cybersecurity requirements to protect environmental data it collects and/or manages. (It does not, however, require tribes to establish cybersecurity requirements, only to adhere to requirements that already exist.) Second, it requires recipients that connect with EPA information systems ensure that machine to machine connections meet EPA security requirements and enter into Interconnection Service Agreements as appropriate. The second requirement does not apply if the tribe is connecting to EPA through the EN or through EPA's Central Data Exchange, as they already have their own security in place.

### **How does this term and condition affect tribal EN grant recipients?**

This Term and Condition requires tribes to follow applicable cybersecurity requirements. It does not, however, require tribes to establish cybersecurity requirements, only to adhere to requirements that already exist. EPA, however, encourages tribes that do not currently have such requirements to develop them. The second requirement, which concerns connections with EPA, does not apply to EN grants because tribes will be connecting to EPA through the Exchange Network. The Exchange Network already has its own security in place.

## ***E-Enterprise***

### **What is E-Enterprise for the Environment?**

[E-Enterprise for the Environment \(E-Enterprise\)](#) is a working model for collaborative leadership among environmental co-regulators (states, tribes and EPA) aimed at streamlining and modernizing the implementation of environmental programs.

### **What is meant by the term 'co-regulators'?**

In the context of E-Enterprise, the term "co-regulators" is intended to apply to all states and tribes, based on the principle that, under certain environmental and public health statutes, all states and tribes have a status under which they can exercise co-regulatory authority if they desire to and meet the statutory conditions for program authorization.

## **How are tribes involved in E-Enterprise?**

E-Enterprise joint governance is led by the E-Enterprise Leadership Council (EELC). The EELC is composed of ten EPA Senior Executives (i.e., Deputy Administrator, Assistant and Regional Administrators or their Deputies), ten State Commissioners (or other high-level state officials), and ten tribal officials or representatives designated by each of the ten RTOCs (or equivalent).

The E-Enterprise charter sets forth a process for full and equal participation of tribes in the governance of E-Enterprise activities. Tribal participation and communication is supported through a cooperative agreement with Cherokee Nation.

Tribes environmental programs may benefit from participating in E-Enterprise projects to help with cost reduction, streamlining approaches and leveraging partnerships with other co-regulators.

Tribes interested in joining E-Enterprise Project Teams or learning about the E-Enterprise Governance structure should contact Jessica Snyder at [snyder.jessica@epa.gov](mailto:snyder.jessica@epa.gov).

## **How is E-Enterprise for the Environment related to the Exchange Network?**

E-Enterprise is built upon the foundation of the Exchange Network, and tribes have been a big part of that success. The Exchange Network is a data exchange platform to package and share environmental information among co-regulators and others. E-Enterprise is related to this effort because it is intended first to streamline environmental business processes, and then incorporate information technology, such as the Exchange Network develops, for maximum benefit. The intent to streamline processes before we automate is necessary for all of us to use our shrinking resources efficiently.