

**Missouri State Energy Planning
(MoSEP)
Summary and Action Report
Process Kickoff and Next Steps**



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES
DIVISION OF ENERGY

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Executive Summary

The Missouri Department of Natural Resources (Department) initiated the Missouri State Energy Planning (MoSEP) process in late 2020. The MoSEP process is intended to identify and address topics critical to Missouri's current and future energy needs through an ongoing series of stakeholder engagement workshops. The beginning of the process included the release of updated energy-related data and a Virtual Energy Stakeholder Kickoff Workshop held to share information and to identify stakeholder priorities for energy planning.

Based on stakeholder feedback and the market-driven transformation already underway in the energy sector, the MoSEP process will be pursued through a series of regionally focused initiatives unified by a state-level "value statement." The core values of the process are to:

- Assure secure, reliable and resilient energy infrastructure and supplies.
- Enhance Missouri's competitive position in business retention, expansion and attraction through affordable rates and renewable energy options.
- Develop diverse in-state energy resources.
- Create opportunities for energy-related technological innovation and workforce development.
- Ensure affordability and equity in access to energy resources, services and programs.
- Promote the efficient and environmentally sound use of energy.

The regionally focused initiatives will target regional energy opportunities and topics of interest. Metrics will measure success toward achieving the goals in the statewide value statement. A report will be prepared for each initiative.

This report documents background information and materials from the Virtual Energy Stakeholder Kickoff Workshop and describes the next steps in the MoSEP process.

1. Background

a. State Energy Planning Overview

The Missouri Department of Economic Development released the 2015 Comprehensive State Energy Plan (CSEP) following a one-year stakeholder engagement process. The 2015 CSEP addressed the efficiency of energy use, affordability, diversity and security of energy supplies, regulatory changes, and economic development. Since 2015, the energy landscape has shifted significantly both in Missouri and across the U.S. These changes have been driven by economics, consumer preferences, and legislative authorizations.

In 2020, the Department initiated the MoSEP process to address changes in Missouri's energy landscape. The process is being driven by stakeholder input and will address specific topic areas over a multi-year period. Following the Virtual Energy Stakeholder Kickoff Workshop and gathering of stakeholder feedback, the Department has identified the next steps in the process, which are addressed later in this document.

b. Data Update

As part of the MoSEP process, the Department produced Missouri State Energy Planning (MoSEP) – Missouri Energy Data and Trends (PUB2887).¹ The Department plans to publish additional data in association with the ongoing MoSEP process. In order to provide more accessible and timely data to the public, the Department is also placing energy-related data tools on its online Energy Data Dashboard.² The charts in the dashboard update automatically with changes to the underlying external data sources, and users can interact with the charts to examine specific data points. The dashboard will be expanded over time.

c. Energy Provider Portfolio and Investment Planning Information

Also of interest from a state energy planning perspective are energy providers' recent portfolio-related plans. Now and for the foreseeable future, Missouri's need for affordable and reliable energy is anticipated to be met through a diverse portfolio of resources. Portfolio changes have been influenced by factors including economics, consumer preferences, and legislative authorizations. Pertinent legislation includes Senate Bill 564 (2018), which created a framework for investor-owned electric utilities to continue investments in new technologies and resources, required five-year investment plans to be filed with the Missouri Public Service Commission (PSC), and increased investments in solar energy. The Renewable Energy Standard, the Missouri Energy Efficiency Investment Act, and federal tax credits also contribute to portfolio changes.

The following changes in energy providers' supplies and infrastructure investment plans were described at the Virtual Energy Stakeholder Kickoff Workshop:

¹ Missouri Department of Natural Resources. 2021. [Missouri State Energy Planning \(MoSEP\) – Missouri Energy Data and Trends](#). PUB2887.

² Missouri Department of Natural Resources. 2020. [“Energy Data Dashboard.”](#)

- Over the next several decades, Ameren Missouri plans to gradually retire its coal-fired energy centers as 5,400 MW of wind and solar resources are added. Ameren Missouri's planned portfolio changes are expected to result in net-zero carbon emissions by 2050, with emissions reductions of 50% by 2030 and 85% by 2040, compared to a 2005 baseline.³
- Evergy (in Missouri, formerly Kansas City Power & Light Company and KCP&L – Greater Missouri Operations Company) is investing in wind and solar resources, grid modernization, and new technologies such as battery storage and electrification. As of the time of the Virtual Energy Stakeholder Kickoff Workshop, the planned investments targeted an 80% reduction in carbon emissions by 2050, compared to a 2005 baseline. Citing the potential for further wind and solar resource investment, the company noted the potential for additional emissions reductions through a modified regulatory framework.⁴
- Associated Electric Cooperative, Inc. has two new wind projects in northwest Missouri that they reported to be priced competitively.⁵
- The Missouri Public Utility Alliance (MPUA) is pursuing joint ownership of transmission assets. MPUA reported that it is maintaining diversity of supply, affordability, and reliability.⁶
- Spire reported that it is replacing aging natural gas infrastructure to improve safety and reliability, which also provides an environmental benefit.⁷ In addition, the company is moving to add renewable natural gas.⁸

³ Wood, Warren. 2020. "[Missouri State Energy Plan Update](#)." Presentation at Missouri State Energy Planning (MoSEP) Virtual Energy Stakeholder Kickoff Workshop. Oct. 29. Slide 25.

⁴ Klindt, Jason. 2020. "[Missouri State Energy Plan Update](#)." Presentation at Missouri State Energy Planning (MoSEP) Virtual Energy Stakeholder Kickoff Workshop. Oct. 29. Slides 76-82.

⁵ Stewart, Brent. 2020. [Untitled](#). Presentation at Missouri State Energy Planning (MoSEP) Virtual Energy Stakeholder Kickoff Workshop. Oct. 29. Slide 33.

⁶ Lawson, Ewell. 2020. "[Meeting: Missouri State Energy Planning/Virtual Energy Stakeholder Kickoff Workshop](#)." Oct. 29. 1:02:59 to 1:04:13.

⁷ Pleus, Larry. 2020. "[Missouri statewide energy plan](#)." Presentation at Missouri State Energy Planning (MoSEP) Virtual Energy Stakeholder Kickoff Workshop. Oct. 29. Slide 38.

⁸ Pleus, 2020, slide 39.

2. Summary of Planning Kickoff

a. Virtual Energy Stakeholder Kickoff Workshop

On Oct. 29, 2020, the Department hosted the Virtual Energy Stakeholder Kickoff Workshop to initiate the MoSEP process. The meeting included presentations from panelists representing energy suppliers, consumers, and other interested stakeholders, as well as an afternoon discussion of stakeholder feedback (see “Stakeholder Feedback” below). The presentation material is available on the Department’s website, along with a recording of the meeting.⁹ A total of 105 persons attended the online event, including Department personnel.

Panelists acknowledged transformations occurring in the energy sector, but approached these transformations from perspectives based on their experience, interests, and customer demand (e.g., affordability, equity, sustainability, and renewable energy). In particular, participants on the first panel (energy suppliers) highlighted significant changes in energy providers’ portfolios – along with in-state investment – subsequent to the 2015 CSEP. These changes, which are addressed in integrated resource planning cases before the PSC in the context of investor-owned electric utilities (which serve most customers in Missouri), are discussed above under “Energy Provider Portfolio and Investment Planning Information.”

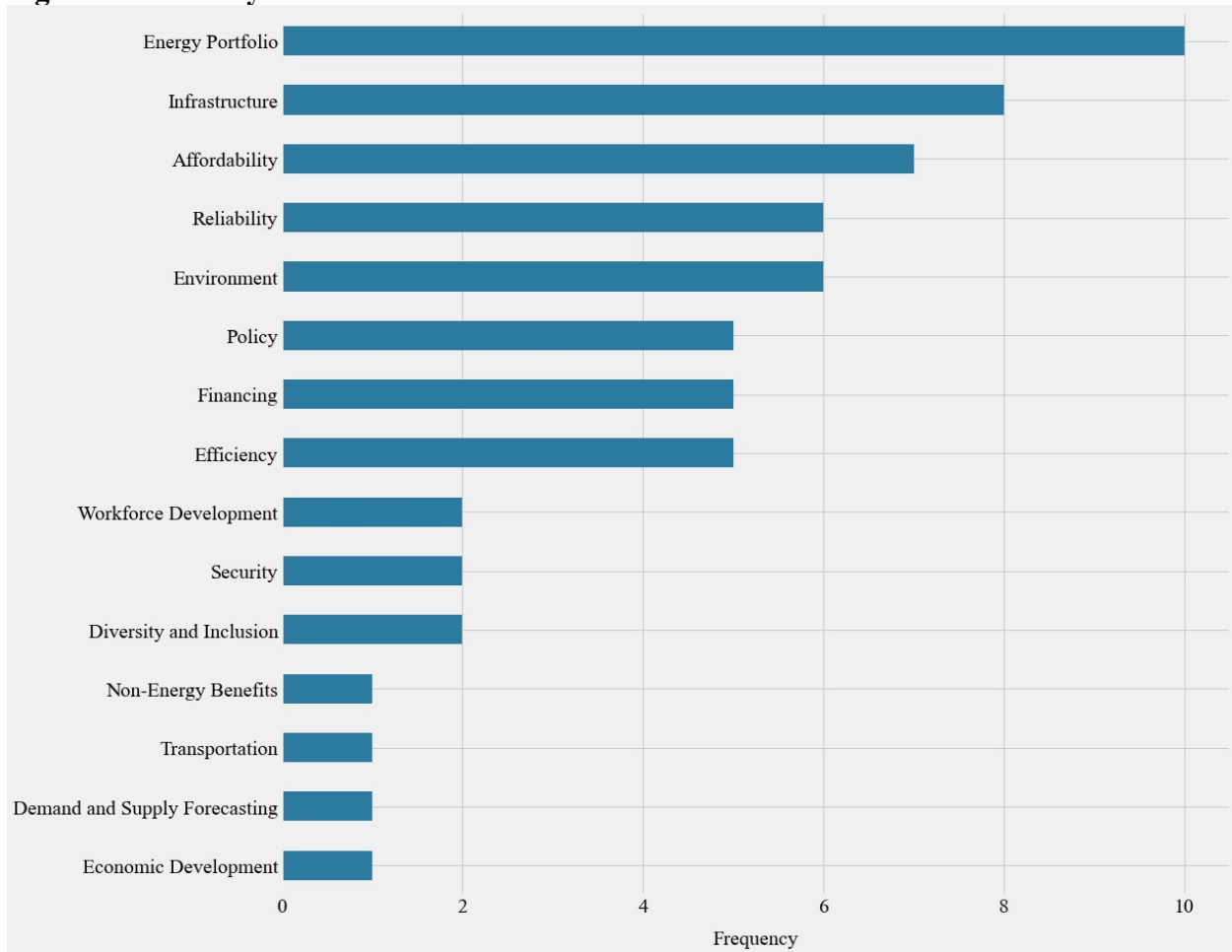
The second panel featured energy consumers and other interested stakeholders. Panelists addressed topics including equity, affordability, carbon emissions, infrastructure resilience, workforce and economic development, and the military’s energy initiatives. The range of considerations addressed by these panelists indicates the need for a planning process that incorporates diverse stakeholder perspectives.

b. Stakeholder Feedback

The Department collected stakeholder feedback on the MoSEP process before and during the kickoff workshop through email and in the meeting’s online chat. In addition, an online Basecamp page was available for topic discussions, although stakeholders did not use this option. Broadly, feedback received can be categorized as shown below in Figure 1. Although these broad categories are useful for a high-level overview, stakeholders’ individual comments are nuanced. For example, comments regarding the energy portfolio topic may relate either to renewable energy or distributed generation, while comments addressing reliability may also address the separate topic of resilience.

⁹ Missouri Department of Natural Resources. 2020. [“Missouri State Energy Planning \(MoSEP\) Stakeholder Meetings.”](#)

Figure 1. Summary of Stakeholder Feedback



It was evident from the second part of the kickoff workshop that stakeholders have diverse concerns to which differing importance is assigned based on individual perspectives. Interest was expressed in affordability, reliability, resilience, Missouri-made energy, movement toward clean energy resources, carbon emissions reductions, and infrastructure expansion that equitably benefits the state both economically and environmentally. Stakeholders identified an interest in focused, actionable recommendations, as well as the need for education. There also was discussion of the appropriate setting for potential actions (e.g., legislative vs. administrative). Further, stakeholders expressed a desire to establish goals and a vision for the MoSEP process.

In addition, the Department conducted a post-workshop survey to gather input on the meeting. As seen below in Figure 2, Figure 3 and Figure 4, as well as in responses to other parts of the survey and individual stakeholder responses, stakeholders were generally satisfied with the workshop format and content, even though the event could not be held in person. Stakeholders were interested in opportunities for providing additional input and clarity on next steps. All respondents indicated they would or might attend future MoSEP process workshops.

Figure 2. Survey Responses to Question 1, “How would you rate this workshop?”

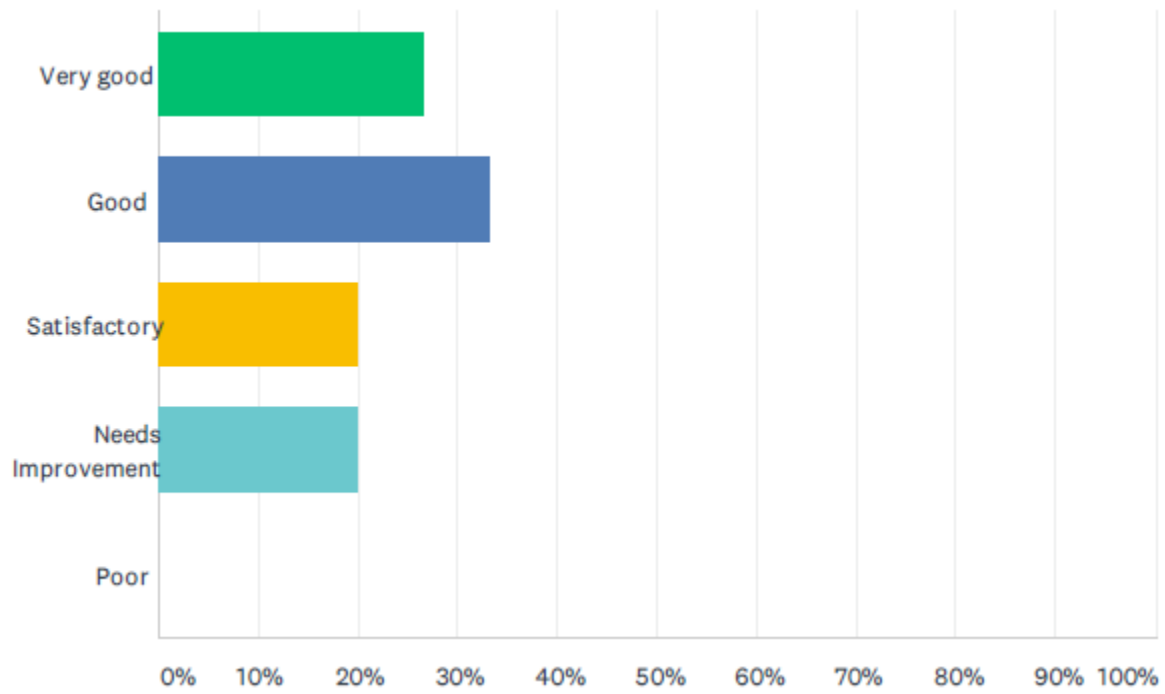


Figure 3. Survey Responses to Question 2, “How likely are you to share event info for the next workshop with a colleague?”

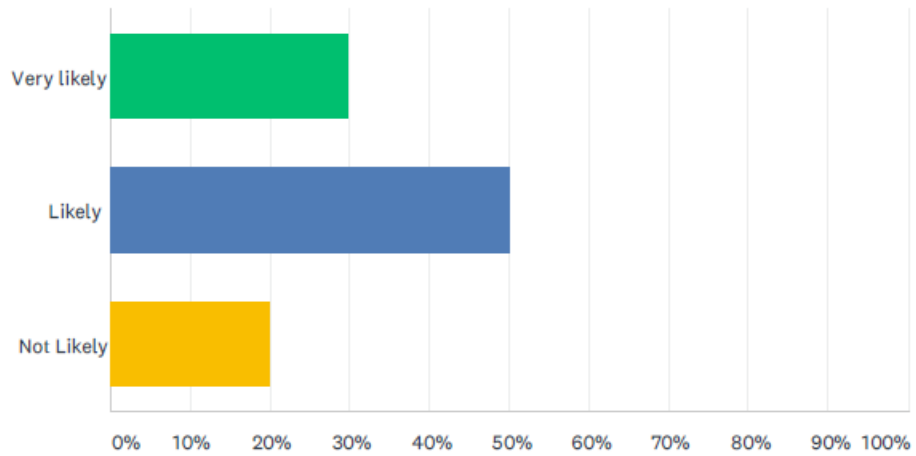
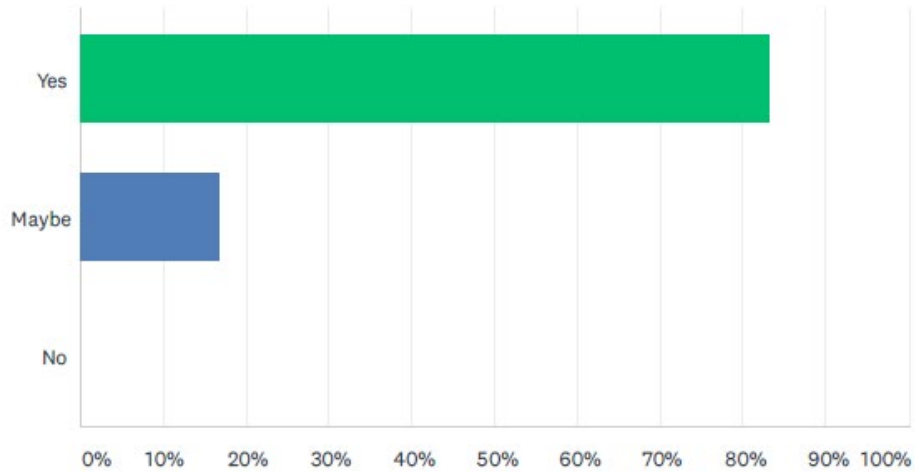


Figure 4. Survey Responses to Question 3, “Do you plan to attend future workshops in the MoSEP process?”



Although not directly associated with the MoSEP process, the Department also notes the information gathered from its Request for Information (RFI) on energy infrastructure financing in underserved sectors. The RFI broadly defines “energy infrastructure” to include, but not be limited to, equipment, fixtures, vehicles and other physical capital involved in the development, extraction, production, generation, transmission or transport, distribution, and/or consumption of energy resources. The definition also includes service connections to energy resources, distributed energy resources, and the control or disposal of waste products and/or pollution involved in these processes. Inquiries and responses to the RFI highlight opportunities for supporting biodiesel, biopropane, biogas, battery development, and in-state business retention and expansion. The responses indicate that there is a market for financing improvements in several underserved sectors, including the agriculture, multifamily housing, commercial, and water/wastewater sectors. The feedback obtained through the RFI shares similarities with the feedback received as part of the MoSEP process, and could be considered when developing regional initiatives, particularly to the extent the initiatives involve the consideration of financing mechanisms such as low-interest loans and loan loss reserves.

3. Recommendations

a. Value Statement

Based on stakeholder feedback, there is an interest in both evaluating common statewide topics and addressing regionally distinct needs and opportunities. In recognition of these two objectives, the Department will facilitate regionally focused initiatives under the MoSEP process that contribute to meeting statewide goals. These goals represent valued concepts rather than specific achievement thresholds. Core values of the process are to:

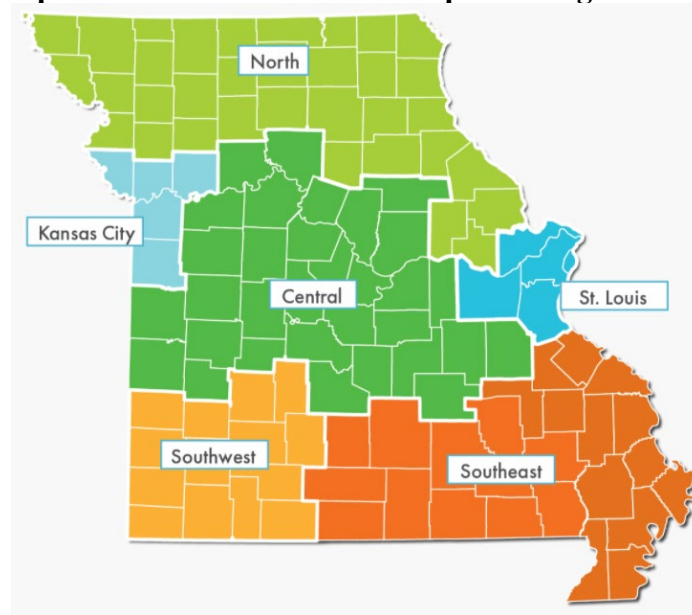
- Assure secure, reliable and resilient energy infrastructure and supplies.
- Enhance Missouri’s competitive position in business retention, expansion, and attraction through affordable rates and renewable energy options.
- Develop diverse in-state energy resources.
- Create opportunities for energy-related technological innovation and workforce development.
- Ensure affordability and equity in access to energy resources, services, and programs.
- Promote the efficient and environmentally sound use of energy.

b. Regional Focus

To create a planning effort that effectively addresses stakeholders’ various interests, the MoSEP process will establish regionally focused initiatives while evaluating progress on the above value statement items. The process will identify interests, needs, concerns, and opportunities particularly relevant to each region of the state. To accomplish this, the MoSEP process will leverage the divisions used by the Missouri Department of Economic Development¹⁰ to facilitate coordination with that department’s regional experts and efficiently use existing state knowledge of common local interests – see Figure 5. Initiative development will occur at approximately the same time for each region.

¹⁰ Missouri Department of Economic Development. Undated. [“Contact Us.”](#)

Figure 5. Missouri Department of Economic Development Regions



The updated structure for the MoSEP process consists of three engagement stages. First, the MoSEP team will coordinate with the Department of Economic Development’s regional managers, representatives from the regions, and local officials to identify up to three key regional priorities and initiatives to discuss at initial public meetings. This stage will include preliminary research and outreach to key stakeholders to identify potential initiatives and unique aspects of each region.

Examples of regional focuses could be:

- Promoting energy-related workforce development opportunities.
- Supporting the resilience of military installations and facilities.
- Improving disaster preparedness and resilience, including assuring energy availability through backup generation and energy or fuel storage.
- Supporting the evolution of port operations and transitions in the types of on-site fuels used.
- Identifying opportunities for carbon emissions reductions in the transportation and buildings sectors.
- Supporting the evolution of truck freight transportation regarding types of fuels used, autonomous vehicles and workforce development.
- Developing energy storage and lead/rare earth element opportunities.
- Supporting multifamily housing efficiency.
- Improving access to resources, e.g., renewable energy purchases by companies and solar development.
- Identifying areas suitable for and supportive of wind development and connecting developers with local leaders.

- Supporting in-state renewable liquid fuel product development, including ethanol, biodiesel, and biopropane, and evaluating the potential for using carbon capture technology at biofuel plants.
- Identifying opportunities for developing biomass fuels from forest residues.
- Developing renewable natural gas.
- Assessing the need for a regional propane terminal and related in-state infrastructure.
- Improving government efficiency.

Emphasis will be placed on achieving consensus-based, actionable proposals tailored to local needs. The first stage will conclude with initial engagement with the public for feedback to further refine regional priorities and initiatives. This public outreach will include presentations from key stakeholders regarding each region's topics of interest.

Following these initial meetings, work teams consisting of interested individuals will be formed to address each initiative. These work teams will be responsible for identifying action steps, any required support, and metrics to address initiative progress. Work teams will also determine qualitative and quantitative metrics regarding the broader statewide goals identified in the previous section of this document. Metrics are discussed further in the next section.

A wrap-up meeting in each region will then allow work teams to finalize their regional initiatives, metrics, and implementation work plans. Stakeholders can also assess what next steps, if any, are recommended. Next steps might include decision points for legislative consideration, programs that should be developed, or opportunities for interregional collaboration. Reports will summarize each initiative.

In the final stage, the Department will hold a Statewide Wrap-Up Workshop similar to the MoSEP process kickoff meeting. Stakeholders from each region will have the opportunity to present their initiatives, metrics, work plans, and any current results.

c. Metrics

As noted above, the regionally focused initiatives will establish metrics related to the broader statewide goals in the value statement. Metrics will be quantitative to the extent practical, clearly defined, time-bound, tied to goal achievement, and based on readily available information agreed upon during initiative development. Target goals will be set for each of the metrics established, and progress toward those goals will be reviewed at regular intervals established during metric development. Development of the metrics and target goals will be undertaken by regional workgroups. Further, the Department anticipates the data associated with the metrics will be made publicly available and shared with state and local leadership to aid in decision making.

Example categories of metrics could include:

- Enhancements to service reliability and resilience.
- Business opportunity creation, e.g., new business ventures.
- Local and state economic development benefits, particularly investment amounts, tax revenue impacts, jobs created or retained, and wage impacts.

- Distributional equity of benefits.
- Energy savings, bill savings, and non-energy benefits.
- Emissions reductions, such as avoided greenhouse gas emissions from changes in transportation fuel consumption or sequestered carbon.

d. Next Steps

The Department began the process of planning regional meetings concurrently with the development of this document. The Department anticipates holding the first regional events in summer 2021. The second events are expected to be held in fall 2021. The third events are anticipated to be held in winter 2021. A statewide regional wrap-up workshop is projected to be held in early 2022. Following the wrap-up workshop, the Department will evaluate the status of work plans and gather progress information on metrics available at that time. This material will be used to develop the MoSEP plan for year two of the process.