

Creating a Justice40 Initiative Plan

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Background and Common Questions

This document will walk an applicant through the two main activities needed to address energy and environmental justice in your project. Together, these two parts make up your Justice40 (J40) Initiative Plan:

1. **Energy and Environmental Justice Assessment:** The first step is an energy and environmental justice (EEJ) assessment. At the center of the EEJ Assessment are impacts, which groups can experience as positive (referred to as “benefits”), neutral or ambiguous (referred to here as “neutral/uncertain impacts”), or negative (referred to here as “disbenefits/harms”). Applicants are encouraged to report all impacts, inclusive of benefits, neutral/uncertain impacts, and disbenefits/harms. The point of energy and environmental justice involves, in part, examining how these impacts are distributed among different groups of people. Core elements of the EEJ Assessment include evaluations of impacted communities; identification of project impacts; analysis of which people and geographic locations impacts will flow to; analysis of how impacts may interact with existing burdens; and assessment of information gaps.
2. **Justice40 Implementation Strategy:** Using the information from this assessment, you will develop a Justice40 Implementation Strategy that outlines concrete steps the project will take to implement energy and environmental justice efforts. Core elements of the J40 Implementation Strategy include actions to maximize benefits; actions to minimize harms/disbenefits; a plan to measure, track, and report all project impacts; and a staffing and resource plan.

A summary of what should be delivered is in the table below. Further detail about what the EEJ Assessment and J40 Implementation Strategy include, and advice on how to go about creating them, is provided in this document.

Deliverables for the Justice40 Initiative Plan

There are four required elements for the EEJ Assessment and four for the J40 Implementation Strategy. The assessment may include other elements as desired and references supporting the work.

The content of the assessment and strategy is summarized in the table below. The rest of this document offers details and advice on how to go about creating the plan. We also recommend creating a slide deck or information sheet to communicate your plan and get feedback on it internally and externally, which can be added as an appendix.

Element	Description	Suggested length
EEJ Assessment		
1. Assessment of Impacted Communities or Groups	Description of all communities or groups that could experience project impacts, including an assessment of which communities are disadvantaged communities and an assessment of the existing burdens experienced by these communities.	1-2 pages
2. Assessment of Project Benefits	Description of all anticipated project benefits, where and to whom those benefits accrue over what time period, the extent to which benefits accrue in disadvantaged communities, and alignment with community priorities.	2-3 pages
3. Assessment of Project Disbenefits/Harms and any other impacts not included under benefits	Description of all anticipated project disbenefits/harms and any other impacts not included under “benefits,” where and to whom those impacts accrue over what time period, including whether disadvantaged communities will experience disbenefits/harms disproportionately and how additional project disbenefits/harms will interact with existing cumulative burdens.	2-3 pages
4. Assessment of Information Gaps	Description of project unknowns and what steps could be taken to clarify gaps in knowledge.	Half a page / 1 page

Element	Description	Suggested length
Justice40 Implementation Strategy		
1. Background	Brief narrative summary of the opportunities and risks related to energy and environmental justice in your project and how your project incorporates environmental and energy justice principles.	Half a page / 1 page
2. Milestones and Timelines	J40 Plan schedule detailing when and how work in the J40 Plan will be conducted. This involves milestones on maximizing benefits and minimizing disbenefits/harms in disadvantaged communities, measuring and reporting project impacts, updating the EEJ assessment, and describing future work.	2-4 pages
3. Reflection on Risks and Barriers to Implementation	Reflection on J40 Plan that discusses barriers or risks to successfully realizing project benefits and minimizing disbenefits/harms to disadvantaged communities and plans for mitigating those risks.	1-2 pages
4. Resource Summary	Description of project resources dedicated to implementing the plan, including staff, capabilities, facilities, and budget.	Half a page / 1 page

What is expected in a Justice40 Plan Development Proposal?

Important: This question only applies to projects that do not require a complete plan at the time of application. If the Funding Opportunity Announcement (FOA) Area of Interest (AOI) requests a plan at application, skip to the next page and look at “Process for Creating a Plan.” If the FOA AOI asks for a Plan Development Proposal, read this information first.

Some projects are not expected to have fully developed Justice40 Plans at the time of application. Instead, applicants should investigate what resources are needed to create a robust and implementable J40 Plan in a “Justice40 Initiative Plan Development Proposal.” Generally, these will be around 4-5 pages, much shorter than J40 plans. Justice40 Initiative Plan Development Proposals should include the following elements:

1. A **preliminary Energy and Environmental Justice Assessment** that includes an analysis of communities, including disadvantaged communities, that will be affected. An assessment can be accomplished using environmental justice screening tools and DOE’s working definition of disadvantaged communities (described below). The review also offers a summary of benefits and impacts, including negative impacts, that can be anticipated based on prior experience or readily available data. For example, some of this work may be known from other permitting requirements or similar projects. This would be an excellent place to cross-reference Community and Stakeholder Engagement work.
2. A **description of research** that will need to be done to develop a detailed plan, including scoping data sources for incorporation into the plan (existing data sources and datasets that need to be developed).
3. A **timeline** for developing the plan, including appropriate milestones.
4. A **description of personnel** working on the plan, including training or qualifications that may need to be acquired.
5. An **estimate of financial resources** required for developing the plan.
6. A **description of any community partners** who may be interested in collaborating on or learning about the plan.

Reading the complete guidance documentation for the J40 Plan below is recommended to best gauge the resources needed for creating and implementing the plan later on.

Background and Common Questions—Q&A

What is environmental justice?

Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, concerning the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population bears a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, and local laws, regulations, and policies. Meaningful involvement requires effective access to decision-makers for all and the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves.

In other words, environmental justice addresses both how benefits and harms are distributed among groups and whether there is meaningful involvement in decision-making.

Because our FOAs also ask for Community and Stakeholder Engagement Plans, the EEJ Assessment and Justice40 Plan tend to focus more on distributive justice -- analyzing the distribution of disbenefits/harms and benefits -- than procedural justice. However, it is recommended these plans be developed in reference to one another.

What is energy justice?

DOE defines energy justice as “the goal of achieving equity in both the social and economic participation in the energy system, while also remediating social, economic, and health burdens on those disproportionately harmed by the energy system.”

What is Justice40?

On January 27, 2021, President Biden issued [Executive Order 14008, Tackling the Climate Crisis at Home and Abroad](#). Section 223 of the Executive Order establishes the Justice40 Initiative, which directs 40% of the overall benefits of certain federal investments to flow to disadvantaged communities. The investments can include clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, the remediation and reduction of legacy pollution, and the development of clean water infrastructure.

Read more about Justice40, including the interim guidance from the White House, here: [The Path to Achieving Justice40 | The White House](#)

Does this mean that 40% of the benefits of our project have to go to disadvantaged communities?

No, the 40% is not on a per-project basis. Individual projects may contribute more or less substantially to this goal (having a higher or lower percentage) based on factors unique to the project.

Successful applicants will demonstrate the ability to act in alignment with the intent of the Justice40 Initiative. Recipients of DOE funds should ensure that the performance of project tasks within disadvantaged communities meaningfully benefits those communities and does not result in increased disbenefits or harms to the disadvantaged community. Doing an EEJ assessment well is one way to guard against increased disbenefits or harms

How are disadvantaged communities defined?

The DOE’s working definition of disadvantaged communities should be used by applicants to this FOA and include data for indicators about fossil fuel dependence, energy burden, environmental and climate hazards, and vulnerability (e.g., housing burden, transportation burdens, etc.). For more details on how the definition was derived, visit [Justice40 Initiative | Department of Energy](#). It is highly recommended to read this resource in its entirety before performing the EEJ Assessment and developing the Justice40 Plan.

What if my project is not in a disadvantaged community? Or what if no one lives around it?

The EEJ Assessment and J40 Plan are required regardless of whether a project or work site is located within a disadvantaged community. Because the Justice40 Initiative includes a wide range of environmental, economic, health, and other social benefits, applicants are encouraged to think broadly about project impacts. Applicants should also think creatively about ways to provide benefits to disadvantaged communities even if the project work site(s) itself is not located in or near a disadvantaged community. Applicants should consider modifications to technical parameters and project cost plans to support the delivery of these benefits.

For example, a project could benefit a disadvantaged community located far from the project site by remediating legacy soil pollution on site that was leaking into a river and affecting disadvantaged communities downstream. A project could also partner with a worker training program in a nearby city to serve individuals from disadvantaged communities.

A project could also minimize and mitigate disbenefits/harms to a disadvantaged community located many miles away from the main project site by ensuring that the increase in truck traffic due to their project does not increase safety or pollution burdens in that community. Another example could be that a project minimizes environmental pollution (and corresponding health impacts) from fossil fuel extraction and use occurring far from the project site by installing solar panels to power their on-site operating facility.

What other impacts should be considered in the context of an EEJ Assessment and Justice40 Plan?

Impacts could include ecological (such as the effects on natural resources and the components, structures, and functioning of affected ecosystems), aesthetic, historical, cultural, economic, social, or health impacts. Applicants may find NEPA requirements a helpful reference when thinking about project impacts. Applicants are invited to consider:

- Direct impacts (caused by the action and occur at the same time and place);
- Indirect impacts (caused by the action and are later in time or removed in distance, but still reasonably foreseeable results of the action); and
- Cumulative effects (“the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions” regardless of which agency or person takes the other actions, which can result from “individually minor but collectively significant actions taking place over a period of time”) (40 CFR 1508.1(g)(3)).

Disbenefits/harms should be quantifiable, measurable, and trackable to the greatest extent possible. It is expected that applicants include quantifiable alongside qualitative metrics.

We have some experience with social impacts assessment / environmental impacts assessment—how is an energy and environmental justice assessment different?

There will be considerable overlap between the tools, methods, and indicators used in these types of assessments, and your prior experience will be helpful. What is unique about the EEJ assessment is that it pays particular attention to (a) who, in terms of which specific groups and communities, bears risks and enjoys benefits; and (b) cumulative burdens, i.e., how a project adds to the impacts that these groups and communities are already facing from energy and other types of projects, past and present. Other forms of social and environmental impact assessment frameworks may not explicitly examine both. Environmental justice assessment has been practiced in many planning fields, and one can think of it as a test of outcome equity. It scrutinizes how effects are distributed among groups and whether those are fair and equitable. This means the applicant must know both the effects and the demographics of who is affected.

If my project is at an early technological readiness level (TRL), do I fill out the assessment and plan for my project activities? Or do I fill it out to capture what would happen after my project if it were successful and this technology was commercialized?

First, confirm that your project requires a J40 plan. Your project may require a **Justice40 Plan Development Proposal**; if so, the requirements are described above. In general, the J40 Plan should be related to the project activities themselves. Still, it should anticipate the impacts and benefits that would happen if the project were built to its final stage. DOE understands that earlier-stage TRL projects will have different benefits, disbenefits/harms, and affected communities than later-stage TRL projects. We expect the reported information to be appropriate for the project stage and match the funded activities. However, if potential co-benefits could reduce environmental harms more broadly as the technology scales, applicants are encouraged to describe these in no more than one paragraph.

Step 1: Conducting an Energy and Environmental Justice Assessment

Conducting an EEJ assessment is a structured process that involves going through the steps below and enumerating the answers in a document. The Social Characterization Assessment in the Community and Stakeholder Engagement Plan Guidance, the Economic Impact and Quality Jobs Plan, and the Environmental Questionnaire can be used to support this process, as appropriate and outlined below.

1. Assess impacted communities and groups

An essential step in ensuring energy and environmental justice is accurately and precisely identifying which communities or groups may be impacted by a particular project—including the existing and cumulative burdens those communities or groups may already be facing.^{1, 2}

Accordingly, applicants must identify which communities and groups of people are impacted by the proposed project, including identifying which communities are disadvantaged communities and assessing the existing burdens experienced by these groups. Impacts to groups, communities and tribes/Alaska Native Corporations (ANCs) should be considered for all inputs and outputs along the entire lifecycle of the project and facility, in addition to impacts at the project site(s) or work location(s).

Below is a list of steps applicants could take to assess impacted communities and groups, identify disadvantaged communities, and characterize existing burdens.

Identifying impacted communities, groups, and/or tribes/ANCs

When identifying impacted communities, groups, and/or tribes/ANCs, consider groups of individuals living in geographic proximity (such as census tract) and geographically dispersed sets of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions ([Justice40 Initiative | Department of Energy](#)).

- Follow the steps outlined in the *Social Characterization Assessment* and the *Stakeholder and Community Identification* sections in the Community and Stakeholder Engagement Plan Guidance to complete those portions of the Engagement Plan. What communities or groups are within the project's affected area(s) or would otherwise be influenced by the proposed project?
- Once you have a list of communities or groups loosely defined, consider if there are subsets of the groups or community that might face additional impacts based on other categories that are not captured at the larger group or community level., These categories include socioeconomic, demographic, or geographic/physical factors that can contribute to inequality, such as gender, citizenship, socioeconomic status, language accessibility, race/ethnicity, age, disability, education, physical or geographic barriers or structures, and access to transit, etc.
- Determine what type of data/descriptors best describe or specify each community or group at the most granular level possible, including any sub-groups as identified above. Different groups or communities may have different types of data/descriptors that are most accurate or informative but could include:
 - City, town, or county boundaries
 - Neighborhood
 - Private property borders
 - Tribal lands

¹ National Renewable Energy Laboratory. (2021). Energy Justice: Key Concepts and Metrics Relevant to EERE Transportation Projects. Retrieved from <https://www.nrel.gov/docs/fy21osti/80206.pdf>

² Pacific Northwest National Laboratory. (2021). Advancing Environmental Justice. Retrieved from https://www.pnnl.gov/sites/default/files/media/file/PNNL_EnvironmentalJustice_WhitePaper-Primer_2021.pdf

- Census tract number, census block group number, etc.
- Geological feature boundary
- Map or shapefile
- Groups with similar characteristics
- Full address (could include the radius of effect)

***Note:** Identifying impacted communities/groups is an iterative process—applicants may find it useful to revisit this portion of the assessment after identifying project impacts. For example, after completing Steps 2 and 3 of the EEJ Assessment, applicants can review the proposed project’s anticipated benefits and disbenefits/harms. Where and to what communities or groups could these impacts flow? Add any communities or groups to this section.*

Identifying disadvantaged communities

For this step, applicants must use DOE’s definition of disadvantaged communities ([Justice40 Initiative | Department of Energy](#)) to determine which, if any, of the communities or groups impacted are disadvantaged communities (in whole or part).

- Review the list of impacted communities identified above. Which are disadvantaged communities, or located within disadvantaged communities, either in whole or in part?
- Are there groups or communities for which the designation of disadvantaged communities is not yet clear? If so, specify that in the “Assess Information Gaps” section below.
- While doing this, applicants should attempt to identify the factors contributing to inequality that disadvantaged communities face, which is addressed in the following section.

***Note:** If no impacted communities are disadvantaged communities, applicants should provide a detailed explanation to support this conclusion. For example, even if the project work site is far from a disadvantaged community, what efforts have been taken to identify opportunities to benefit disadvantaged communities within the region or state? What steps or analyses have been taken to minimize disbenefits/harms across the project’s entire lifecycle in disadvantaged communities?*

Characterize existing burdens

For each impacted community and group, characterize the existing burdens faced. For example, applicants could:

- Report and interpret each host community’s indicator values (scores) using the EPA’s EJSCREEN tool ([EJScreen: Environmental Justice Screening and Mapping Tool | US EPA](#)).
- Consult DOE’s working definition of Disadvantaged Communities ([Justice40 Initiative | Department of Energy](#)) to examine the thirty-six (36) indicators collected at the census tract level used to construct the working definition.
- If applicable, use other publicly available tools. Some states have their own EJ screening tools, such as:
 - New York: <https://www.nyserda.ny.gov/ny/disadvantaged-communities>
 - California: <https://www.cpuc.ca.gov/discom/>
- Engage with impacted communities to assess existing burdens experienced by communities.

Output 1.1: Text and figures that describe all applicable impacted communities, groups, and tribes/ANCs to which the anticipated project impacts could flow, including data/descriptors for each at the most granular level possible. This section should identify which of these are located in Disadvantaged Communities (DACs) per DOE's working definition of DACs. The section should also characterize the existing burdens faced by impacted communities or groups. Recommended length 1-2 pages, or more if including geospatial analysis.

Below is a non-exhaustive list of ways to present the required information:

- Narrative descriptions containing information on relevant groups.
- Tables that describe impacted communities/groups, sub-groups, relevant datasets and descriptors, DACs designation(s) for each community/group, and burdens faced. See Appendix B for examples of how this information can be structured.
- Maps and/or other geospatial analysis showing locations of impacted communities/groups and/or existing cumulative burdens, for example using an EJScreen analysis report.

Conducting an EEJ Assessment: Assess impacted communities and groups—Q&A

What data or methodology should we use when describing a particular community?

There are many ways to describe or specify groups or communities, including geographically proximal and dispersed groups. Whenever possible, provide data and descriptors at the smallest granular level possible that accurately represent the impacted group or community.

Are tribal lands and U.S. Territories considered disadvantaged communities?

Federally recognized tribal land and U.S. territories are categorized as disadvantaged communities under the OMB Interim Guidance's "common conditions" definition of communities. For locations of federally recognized tribal land and U.S. territories, see the DOE working description of disadvantaged communities: [Justice40 Initiative | Department of Energy](#).

2. Assess project benefits

The assessment of project benefits describes benefits that might result from the project, where and to whom those benefits accrue over what time period, the extent to which benefits accrue in disadvantaged communities, and the alignment of project benefits with community priorities.

Because benefits can include job creation and other economic benefits, as well as benefits that relate directly to engagement with relevant communities, applicants are encouraged to draw from and reference the Economic Impact and Quality Jobs Plan and Community and Stakeholder Engagement Plan.

Below is a list of steps applicants could take to assess project benefits and when those benefits will accrue.

Identifying project benefits and metrics

Benefits include environmental, economic, health, social or other benefits defined by impacted communities. While tracking benefits may include tracking direct investments, benefits are much broader than direct investments. To guide the implementation of the Justice40 Initiative, DOE identified eight policy priorities that outline some types of Justice40-relevant benefits that applicants should consider when assessing project benefits in disadvantaged communities:³

1. Decreased energy burden.
2. Decreased environmental exposure and burdens.
3. Increased parity in clean energy technology access and adoption.
4. Increased access to low-cost capital.
5. Increased clean energy enterprise creation and contracting (Minority Business Enterprise/Disadvantaged Business Enterprise).
6. Increased clean energy jobs, job pipeline, and job training for individuals.
7. Increased energy resiliency.
8. Increased energy democracy.

Not all of these benefits will apply to every project, and some may have benefits not on this list. Furthermore, some categories of impacts could be beneficial for one project but create disbenefits/harms for another. For example, suppose a carbon capture facility on a power plant increased rather than decreased an energy burden. In this case, applicants should carefully consider and assess the impacts appropriately for this project. Benefits relevant for a particular application will depend on the project, location, priorities and needs of impacted communities. To the greatest extent possible, applicants should work with impacted communities early and often to define the benefits that are most relevant to them.

Benefits should be quantifiable, measurable, and trackable to the greatest extent possible. Applicants will likely include qualitative alongside quantitative benefits. Applicants can find guiding questions for an initial assessment of project benefits in Appendix A at the end of this document.

Assessing where/to whom benefits will flow

Once project benefits are identified, applicants must provide an initial assessment of where/to whom they will flow, over what time period, and to what extent benefits will flow to disadvantaged communities. In addition, applicants should examine groups beyond disadvantaged communities and determine what categories of people will most directly benefit, including gender, economic sectors, neighborhoods and social institutions. Questions for assessing where and to whom benefits will flow can be found in Appendix A at the end of this document.

Assessing alignment to community priorities

Briefly describe how well the anticipated project benefits align with community priorities. This description can build on any information contained in the Two-Way engagement statement in the Engagement Plan regarding the extent to which the host community or communities have already consented to the proposed project. Have other community-based organizations or relevant groups identified community priorities that align or do not align with project benefits?

As an illustrative example, a project benefit could look like the following:

You may have identified that a **benefit** from your project is the remediation of legacy soil contamination on a property site that is adjacent to a public park and several homes. Your **metric and unit** could be soil lead level (ppm lead), which you plan to reduce from the current **value** of 1600 ppm to below 400 ppm. **Temporally**, this benefit will begin to accrue after remediation is complete and continue in perpetuity, for at least as long as the project's duration but likely much longer. The **data type** is empirical/measured, and the **collection methodology**/

³ For more details visit [Justice40 Initiative | Department of Energy](#).

source is that soil samples will be collected and tested before and after remediation activities. A third party will take samples, and results will be posted on a publicly available website within one month of testing. In your EEJ Assessment, you determine that the **impact area** will be the project site location boundaries (provided elsewhere in this application) and the properties directly adjacent to the project site (which includes one block of homes and the park). This **benefit will flow** directly impact two communities/groups:

1. those that live in the homes directly adjacent to this property, where soil from the property may blow into their yards, and
2. visitors to the nearby park adjacent to the property. Of the communities identified, you determine that 100% of the homes in the block adjacent to the project can be classified as **disadvantaged communities** per DOE's working definition. While you do not have direct data on which individuals or groups use the park, you can estimate this using the map associated with DOE's working disadvantaged communities definition. By drawing a 5-mile radius around the park, you find that about 60% of the area is disadvantaged and 40% is not. By using the EJScreen analysis to **quantify existing and cumulative** burdens contained in Output 1.1, you find that this neighborhood is in the 90-95 percentile for lead paint. The benefit of removing legacy soil contamination aligns well with **community priorities**. A local community-based organization representing residents has advocated for remediation at this site for over seven years.

Output 1.2: Applicants must describe anticipated project benefits, including to the greatest extent possible metrics and units of measurement that can be used to track these benefits. Applicants must also describe where/ to whom benefits will flow and to what extent they will accrue in disadvantaged communities. Applicants should also describe the extent to which benefits align with community priorities. The recommended length is 2-3 pages.

Below is a non-exhaustive list of ways to present the required information:

- Narrative descriptions containing the information above or additional supporting information, for example, information on the applicant's processes processes the applicant used to compile this list (e.g. analyzing impacts from similar projects, organizing a roundtable with nearby community-based organizations to identify priorities for the community, etc.).
- Tables that enumerate benefits, metrics, where/to whom they will flow, over what time period, and to what extent benefits will flow to DACs, etc. See Appendix B for examples of how this information can be structured.
- Maps and/or other geospatial analysis showing where particular benefits are likely to accumulate overlaid with disadvantaged communities.

Conducting an EEJ Assessment: Assess project benefits—Q&A

What if some of my benefits are hard to quantify or track?

In order to ensure transparency and beneficial outcomes, benefits should be quantifiable, measurable, and trackable to the greatest extent possible; however, it is expected that applicants include qualitative alongside quantitative benefits. Applicants should strive to list all anticipated benefits, even if they cannot be quantified currently or in the future.

What if my project has benefits that don't fall under any of the policy priorities outlined above?

Please include all anticipated project benefits, even if they do not align with the policy priorities or other examples/ categories in this document.

3. Assess disbenefits/harms and any other project impacts not included under “benefits”

The assessment of project disbenefits/harms and any other project impacts not included under “benefits” describes all disbenefits/harms that might result from the project; where, to whom, and when those disbenefits/harms will flow, including the extent to which they will accrue in disadvantaged communities; and how they interact with existing and cumulative burdens. In this section, applicants must also include any impacts which are neutral/

uncertain or otherwise not included in the “benefits” section. In some cases, different groups or communities could experience the same impact as a benefit, disbenefit, or neutral impact. As a result, the classification of impacts as benefits/neutral/disbenefits should reflect the views of the impacted communities/groups to the greatest extent possible. It is understood that impacts may be classified differently throughout the life of the project or for different projects due to a deepening understanding of community priorities and concerns. These are classifications that can be updated in conjunction with community engagement.

Assessing project disbenefits/harms and any other project impacts not included under “benefits”

As described above, disbenefits/harms could include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historical, cultural, economic, social, or health impacts. Applicants are encouraged to consider direct impacts, indirect impacts, and cumulative impacts. Disbenefits/harms should be quantifiable, measurable, and trackable to the greatest extent possible; it is expected that applicants include quantifiable alongside qualitative metrics.

Applicants are highly encouraged to leverage information reported elsewhere in the application, including the Environmental Questionnaire ([NETL F 451.1-1/3 \(doe.gov\)](#)) and the Social Characterization Assessment in the Community and Stakeholder Engagement Plan Guidance, to assess the project disbenefits/harms in your EEJ Assessment. Guiding questions for assessing project disbenefits/harms are provided in Appendix A at the end of this document.

To the greatest extent possible, applicants should work with impacted communities early and often to define what disbenefits/harms are most relevant to them.

Assessing where and who is impacted

After identifying project disbenefits/harms and any other project impacts not included under “benefits,” the consequences of those impacts on particular groups should be analyzed. Accordingly, applicants must provide an initial assessment of where and who is impacted, over what time period, and to what extent impacts will flow to disadvantaged communities. In addition, applicants should also try to examine groups beyond disadvantaged communities and look at what categories of people will be most directly impacted, including gender, economic sectors, neighborhoods, social institutions, etc.

Guiding questions for an initial assessment of where, to whom, and over what period of time disbenefits/harms and any other project impacts not included under “benefits” will flow are similar to those provided in the “Assessing where/to whom benefits will flow” section in Appendix A.

Assessing how disbenefits/harms interact with existing cumulative burdens

A key factor in energy and environmental justice is the concept of cumulative burdens—when certain communities or groups are disproportionately exposed to multiple burdens that can compound or interact in detrimental ways.⁴ Whereas a slight increase in a negative impact may increase the energy burden minimally on one community (e.g. a wealthy community), that same quantity of increase may have a huge effect on a different community (e.g. low-income community). Assessing how potential disbenefits/harms may compound or add to existing burdens is crucial to energy and environmental justice.

Using the existing burdens characterized in Output 1.1, applicants are asked to describe how anticipated flows of project disbenefits/harms will interact with each other and with existing cumulative burdens in each impacted community. Applicants must clearly describe the extent to which project disbenefits/harms could exacerbate existing burdens in disadvantaged communities.

⁴ For example, a single community may be located in an urban heat island, be low-income, have poor public transportation, and be located in a food desert. If that community experienced a period of contaminated tap water where residents had to rely on bottled water to drink and cook, these cumulative burdens could interact and compound by making access to bottled water extremely difficult, whereas a wealthy community experiencing an identical contaminated tap water issue may not be impacted as significantly.

Output 1.3: Applicants must describe anticipated project disbenefits/harms, and any other project impacts not included under “benefits”; where, to whom, and when those disbenefits/harms will flow, including the extent to which they will accrue in Disadvantaged communities; and how they interact with existing and/or cumulative burdens. Recommended length is 2-4 pages.

Below is a non-exhaustive list of ways to present the required information:

- Narrative descriptions containing information above or additional supporting information, such as information on the processes the applicant used to compile this list (e.g. analyzing impacts from similar projects, organizing a roundtable with nearby community-based organizations to identify disbenefits/harms that are important to the community, etc.) or information on the anticipated likelihood/frequency for disbenefits/harms.
- Tables that enumerate disbenefits/harms, metrics, where/to whom they will flow, over what time period, and to what extent disbenefits/harms will flow to disadvantaged communities, etc. See Appendix B, for examples of how this information can be structured.
- Maps and/or other geospatial analysis showing where particular disbenefits/harms are likely to accumulate, overlaid with disadvantaged communities or other maps.

As an illustrative example only, a project disbenefit/harm could look like the following: You may have identified that your project will result in a permanent increase in truck traffic, which has four potential **disbenefits/harms**: (1) increase in safety risk from accidents; (2) increase in dust and noise pollution; (3) increase in tailpipe emissions; and (4) a potential decrease in home values nearest truck routes. You define four separate sets of **metrics and units** corresponding to each impact, respectively: (1) number of accidents; (2) change in noise level (dB) and change in visibility (mi); (3) lb NO_x, HC, SO₂, PM, Ozone, etc., (4) home values. The **data type(s), sources, and methodologies** are, respectively: (1) Estimated from typical rates of accidents for industrial projects in areas of similar population density; (2) TBD/unknown; (3) calculated based on the expected number of trucks, miles driven, and typical exhaust emissions for similar trucks; and (4) publicly available real estate data about home values over time. **Temporally**, because you have enumerated construction-phase impacts in a separate impact, this impact will begin after construction and continue for the duration of the site (expected to be 20 years). While you have not created a final traffic routing plan, you have identified at least two stretches of road/highway that trucks must use; there are multiple options for routes. For the initial assessment, you analyze the two stretches of known road, estimating that all **disbenefits/harms** will accrue within a 0.25-mile radius of the road (your final route and impact area will be refined and updated later on). Therefore, the **disbenefits/harms will flow** to those who live, work, or recreate within 0.25 miles of that known road. In that area, you determine that 20% are classified as **disadvantaged communities** per DOE’s working definition. You use EJScreen 2.0 to assess **existing burdens** by drawing the truck route and performing an analysis, which shows that the disadvantaged communities along this route score in the highest percentile of the EJ indices for PM 2.5 and ozone. The non-disadvantaged communities also score high but to varying or lesser degrees. You overlay your expected increase in emissions with this map and discuss how your disbenefits/harms add to already high burdens, which motivates additional work to consider ways to mitigate and avoid this impact to the greatest extent possible. Further analysis and assessment of **cumulative burdens** also show that a nearby community has limited access to parks, libraries, and grocery stores, all of which require crossing a road that could become more dangerous and congested if chosen for project truck routing – motivating further work to find alternatives that avoid this disbenefit/harm.

Conducting an EEJ Assessment: Assess project disbenefits/harms and any other project impacts not included under “benefits”—Q&A

What are other resources available to think through potential project disbenefits/harms?

Applicants are encouraged to consult with publicly available tools provided by the federal government which assess impacts on communities. These could include:

- Indicators and Data Sources for DOE Definition of Disadvantaged Communities ([Justice40 Initiative | Department of Energy](#))
- EJScreen (<https://www.epa.gov/ejscreen>)
- If applicable, use other publicly available tools. Some states have their own EJ screening tools, such as:
 - New York: <https://www.nyserda.ny.gov/ny/disadvantaged-communities>
 - California: <https://www.cpuc.ca.gov/discom/>

Do we need to include disbenefits/harms or other impacts not included in “benefits” that are unlikely or have a low probability of actually occurring? What about impacts where we already have a mitigation strategy in place?

Yes. Potential disbenefits/harms should be reported even if they are low probability and or if the applicant has already planned or implemented strong mitigation strategies. There is a forecasting element to this work, and it is not expected that applicants have exact predictions about every indirect impact. Generally, it is better to list all potential impacts, direct and indirect, and characterize the knowledge base and uncertainty whenever possible.

4. Assess information gaps

Applicants are expected to provide thorough and comprehensive assessments to the greatest extent possible; however, DOE recognizes that certain elements of this information may not be available at the time of application. Applicants should identify areas in the above EEJ Assessment sections 1-3 where additional work is needed to characterize community and project impacts fully, and where those impacts flow, including the extent to which they accrue in disadvantaged communities and interact with existing burdens. Applicants must outline research and analytical goals to clarify the unknowns in the above assessment, which should also be reflected in the J40 Plan.

Output 1.4: Half a page to a page of text summarizing unknowns and how they will be addressed.

Step 2: Using the EEJ Assessment to Create a Justice40 Plan

All applicants will be required to submit a Justice40 Initiative Plan (J40 Plan), which should outline concrete steps the applicant will take to maximize benefits, minimize disbenefits/harms, and measure, track, and report project impacts.

The J40 Plan is required regardless of whether or not a project or work site is located within a disadvantaged community. Because the Justice40 Initiative includes a broad range of benefits that may accrue across many locations, applicants must describe the potential to minimize and mitigate disbenefits/harms to disadvantaged communities even if the project work site(s) itself is not located in or near a disadvantaged community.

The Justice40 plan should contain four main elements: (1) Background, (2) Milestones and Timeline, (3) Assessment of Risks and Barriers, and (4) Resource Summary. These are described below.

1. Background

The J40 plan should begin with a brief narrative summary of the main opportunities and risks related to energy and environmental justice in your project, as found in the EEJ assessment. What are the most significant opportunities to provide benefits, and what are the most significant potential disbenefits/harms, especially to disadvantaged communities? Summarize briefly how your project meaningfully seeks energy and environmental justice outcomes. Please mention any work your project has done relating to EEJ in the past. If your organization or team has prior or ongoing efforts to incorporate environmental and energy justice into your work, you are encouraged to discuss how their J40 Plan incorporates lessons learned and builds on these prior/ongoing efforts.

Output 2.1: Half a page to a page of narrative summary.

2. Milestones and timelines

From the EEJ assessment, you should have a list of potential benefits and a list of disbenefits/harms to mitigate. The core of the Justice40 plan is to move from these goals (delivering the benefits and minimizing the disbenefits/harms) to outcomes (specific, measurable outcomes that will tell you when those goals have been achieved) to implementation strategies (what you will do to reach the outcomes). You may want to create a table or diagram that specifies goals, outcomes, and implementation strategies, mapping these to your timeline.

Example of moving from goal to outcome to implementation

For example, you may have identified increased truck traffic and corresponding air pollution from diesel fuel as a disbenefit/harm.

Your **goal** may be to minimize air pollution from truck traffic.

Your measurable **outcome** may be that PM2.5 does not increase in your defined project area.

Your **implementation strategy** may involve several coordinated steps:

- Purchasing and providing air monitoring equipment that can also be used by a community-based organization to jointly monitor PM2.5 and provide baseline data.
- Setting up a platform for data sharing on air monitoring, or granting money to a community-based organization to do this.
- Working with the local highway department to develop a truck rerouting plan and ensure that the rerouting plan does not exacerbate pollution for other frontline communities or burden key infrastructure.
- Exploring alternative shipping methods to determine options for lower impact.

These are steps that need to be mapped along a timeline, the J40 Plan Schedule, along with specifying roles and responsibilities within your team.

The J40 Plan Schedule should define its timeline on the same schedule as the Project Management Plan. Milestones from this schedule should also be included in the Statement of Project Objectives (SOPO).

Information to include on the J40 Plan Schedule:

- **Project Milestones for maximizing benefits and minimizing disbenefits/harms:** A description of the technical, analytical, and engagement work of the project, that could lead to increasing project benefits and decreasing project disbenefits/harms for communities, especially disadvantaged communities. The description should reference project Tasks, subtasks, and SOPO milestones.
- **Project Milestones to measure, track, and report project impacts.** A description of the technical and communications work of the project to track, monitor, and report project impacts, including specifying how the surrounding communities will be able to access monitoring data. The plan should describe how community feedback will be used to align J40 activities to be responsive to community needs. The description should reference project Tasks, subtasks, and SOPO milestones.
- **Project Milestones to uncover information gaps:** The EEJ assessment identified areas where additional work is needed to assess project impacts and impacted communities or groups fully. Here, you should write up a brief list of tasks that will be carried out to clarify unknowns, including prioritization and who will be responsible for these research and analytical activities.
- **Updates to EEJ Assessment:** A description of how, when, and how frequently the project plans to update the EEJ Assessment, including a clear indication of when any portions of the EEJ Assessment that are unknown at the time of application will be completed. This should also include some mechanism for evaluating plan progress. It should also be updated based on what is learned from community and stakeholder engagement, i.e., there may be additional impacts that stakeholders would like to see addressed.
- **Future work:** A description of potential EEJ and J40 activities for future work either under DOE awards or the lifecycle of the project.
- **Start date for implementing the plan:** The applicant should propose when they will begin implementing this plan which will be no later than 90 days into the project.

Output 2.2: 2-4 pages of tables and/or text covering the information listed above.

3. Reflection on risks and barriers to an implementation strategy

While your EEJ assessment should outline potential benefits, and your Milestone and Timelines section should outline steps to realize them, there is often no guarantee that those benefits are always realized. Similarly, there may be the theoretical potential to minimize disbenefits/harms, but this may fail to be done in practice. In other words, this section addresses the gap between ambition and reality and how we can be sure that benefits or risk mitigation measures can actually be delivered. This activity may surface additional actions to add to your plan. It may also help you identify external factors which can inform your engagement plan.

In this section, please describe:

Realizing benefits

1. To what extent are identified benefits inherent in the project or dependent on external policy, social, or economic factors? What are these factors?
2. What could be barriers to delivering these benefits?
3. What would need to be done, by people on the project team and by people external to the organization, to overcome these barriers?

Minimizing disbenefits/harms

1. What could be obstacles to your plans for minimizing disbenefits/harms?
2. What would need to be done, by people on the project team and by people external to the organization, to overcome these barriers?

Output 2.3: 1-2 pages of narrative.

4. Resource summary

This section should describe project resources dedicated to implementing the plan. Include information about staff (number, time on project, and experience), facilities, capabilities (including energy and environmental justice expertise), and budget (both federal and cost share) that will support implementing the plan. This can include contracting or partnering with organizations with relevant expertise.

Output 2.4: Half a page to a page of summary in any format desired (table, list, narrative).

Further Questions

Do we need letters of support for J40 Plans?

Letters from members and representatives of disadvantaged communities are one useful way to demonstrate community support.

What are some further resources?

- Climate and Economic Justice Screening Tool (beta): [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](#)
- Energy Equity Project list of resources <https://energyequityproject.com/resources-2/>
- Tools to Support Environmental Justice: <https://www.epa.gov/healthresearch/tools-support-environmental-justice>
- Addressing cumulative impacts: Lessons from environmental justice screening tool development and resistance: <https://www.elr.info/articles/elr-articles/addressing-cumulative-impacts-lessons-environmental-justice-screening-tool>
- Energy Justice Workbook: <https://iejusa.org/workbook/>
- Technical guidance for assessing environmental justice in regulatory analysis: <https://www.epa.gov/environmentaljustice/technical-guidance-assessing-environmental-justice-regulatory-analysis>
- Social impact assessment and management methodology using social indicators and planning strategies: [Social impact assessment and management methodology using social indicators and planning strategies \(Technical Report\) | OSTI.GOV](#)
- Energy Justice: Key Concepts and Metrics Relevant to EERE Transportation Projects: <https://www.nrel.gov/docs/fy21osti/80206.pdf>
- PNNL primer on Advancing Environmental Justice: https://www.pnnl.gov/sites/default/files/media/file/PNNL_EnvironmentalJustice_WhitePaper-Primer_2021.pdf

Appendices

Appendix A: Guiding Questions for an EEJ Assessment

Guiding questions for an initial assessment of project benefits could involve the following. **We do not expect plans to answer all these questions explicitly; we list them here as a resource for you to draw from as you assess project benefits:**

- Review the eight DOE Justice40 policy priorities (enumerated below). Which of these benefits could result from the proposed project?
- To what extent does the proposed project provide ancillary environmental benefits, such as reductions in CO₂, CO, NO_x, and SO_x emissions, particulate matter, or hazardous pollutants?
- Does your project involve any clean-up or remediation of legacy waste or hazardous pollutants?
- Does the project aim to remedy past harms from the energy system (e.g., remediating and repurposing fossil infrastructure)?
- To what extent does the proposed project provide social benefits (any benefit that affects people)? To what extent are those benefits inherent in the project, or contingent on external policy, social, or economic factors?
- Is your project led by community-based organizations or coalitions, or does your project include community-based organizations as key partners? Does your project feature participation by communities that enables them to influence key decisions?
- To what extent will the proposed project spur enterprise creation, for example, through contracts with other businesses or organizations?
- To what extent will the proposed project result in quality job creation, workforce development, and other economic benefits? This can pull directly from the Economic Impact and Quality Jobs Plan.
- Does the proposed project have engagement or technical assistance activities that can increase capacity in other organizations or groups?
- To what extent will your project provide other benefits relevant to the surrounding community that is not captured in the above? For example, this could be increased tree cover in the area surrounding the project, upgrading park equipment and at a nearby park that needed to be relocated due to construction activities, etc.
- For early-stage projects, what benefits might the research activities have? (e.g., building capacity in the community to engage with the topic, training early-career researchers, supporting citizen-science as a method for data collection)?
- For all benefits identified, what metrics or units could be used to measure, track, and report those benefits? Are there metrics or sets of metrics that can be used to account for both baseline values (existing values) and changes in communities or groups?
- How can benefits be measured, estimated, or modeled? How can these values be checked to ensure they reflect experience on the ground? What opportunities are there for community participation in the measurement, estimation, or modeling of benefits?

Guiding questions for an initial assessment of where, to whom, and over what period of time benefits will flow could involve the following. **We do not expect assessments to answer all these questions explicitly; we list them here as a resource for you to draw from as you assess where project benefits could flow:**

- Review the list of impacted communities from part 1. Which of these communities are most likely to receive which benefits?
- To what extent does each benefit flow to disadvantaged communities?
- What are the mechanisms by which the benefits listed will accrue in different communities or groups? How do those mechanisms impact which communities, groups, or sub-groups may have greater access to those benefits?

- Are there social, economic, geographic, or other barriers that would prevent a specific benefit from accruing in a particular community or group?
- What established pathways, structures, relationships, or mechanisms (social, economic, geographic, or other) already exist that would enable certain benefits to flow easily to some communities or groups but not others?
- Does your proposed project team have existing plans or relationships that would affect how benefits are likely to flow?
- For each benefit, what is the expected timeframe over which that benefit will accrue? Do different groups or communities experience a benefit on different time scales?
- For benefits that have a clearly defined geographical area of effect—what is that geographical area? Which communities or groups defined in Step 1 would receive these benefits? Are the benefits evenly distributed within this geographical area? If not, how can you estimate an apportionment of benefits within this area?
- For benefits without a clearly defined geographical area of effect—what factors might impact which groups are most likely to receive project benefits? Are any of these factors more or less likely to occur for the proposed project due to economic, geographic, or other factors?

Guiding questions for an initial assessment of disbenefits/harms and any other impacts not included under “benefits” could involve the following. **We do not expect plans to answer all these questions; we list them here as a resource for you to draw from as you assess project disbenefits/harms:**

- What questions and responses in the Environmental Questionnaire ([NETL F 451.1-1/3 \(doe.gov\)](#)) are relevant for your project and can be included in this assessment? Applicants are highly encouraged to use the Environmental Questionnaire questions as a baseline assessment of project disbenefits/harms and any other impacts not included under “benefits.”
- How does the proposed project rely on limited resources such as biomass, freshwater, land, or low-carbon energy?
- What environmental pollution or waste streams (including those discharged to air, water, or soil) will your project generate, both during the project execution phase and after if equipment remains in operation (if applicable)?
- To what extent will the proposed project increase energy prices or energy burdens?
- To what extent will your project impact land-use patterns?
- To what extent could your project impact home values, gentrification, or other indirect impacts?
- Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
- For all disbenefits/harms and any other impacts not included under “benefits” identified, what metrics or units could be used to measure, track, and report those impacts? Are there metrics or sets of metrics that can be used to account for both baseline values (existing values) and changes in communities or groups?
- How would disbenefits/harms and any other impacts not included under “benefits” be measured, estimated, or modeled? How can these values be checked to ensure they reflect experience on the ground? What opportunities are there for community participation in the measurement, estimation, or modeling of impacts?

Appendix B: Example table formats for requested EEJ Assessment information

Applicants may provide EEJ Assessment information in a format that works best for their organization. Below is an example of how applicants could provide some of the requested information in a table format if desired.

Table B.1: Example Output Table for assessing impacted communities.

Name of Community or Group	Description of the Community/ Group	Description of anticipated positive and disbenefits/ harms	Portion of this group considered a Disadvantaged Community (% description)	Is the group considered a Host Community (Y/N)	Geographic Resolution for reporting flow of project benefits and impacts.	List the Coding information of the most granular geographic resolution.	If appropriate, Indicator Value (score) from EPA EJSCREEN tool	If appropriate, additional environmental and energy justice scores Score: Source:	Additional Community/ Group Information

Table B.2: Example Output Table for tracking, quantifying, and measuring anticipated project benefits.

Group benefits (environmental, social, economic, health, etc.)	List performance metrics or parameters (key parameters (KPPs)) per task in separate rows that will be used to measure success of the proposed task. value.	Direct or indirect investment or outcome	List the current state of technology or KPP measurement that has been achieved or demonstrated to-date. Use this column to establish the baseline If unknown at start of project, indicate "Unknown"	If applicable: List an intermediate target that builds upon the Baseline Measurement and can be used to assess progress of the proposed approach	List the proposed end target of the approach. This should be the goal of the proposed task over the funding period and uses the same parameter as the Baseline Measurement and Intermediate Target listed.	List the units of the measured parameter, if applicable.	Describe how the KPP Baseline Measurement was determined. For unit operation tests/ experiments include hours of steady-state operation and important operating conditions.	List the duration and scale of the Baseline, Intermediate, and Target KPP (e.g., Modeled, measured in laboratory, measured in field at X scale)		
Benefits Grouping	Key Performance Parameter (KPP)	Direct or indirect investment or outcome	Baseline Measurement	Intermediate Target	Proposal End Target	Units	Data Basis / Measurement Description	Baseline Measurement Duration and Scale	Intermediate Target Duration and Scale	Proposed End Target Duration and Scale
Environmental Benefits	KPP E1									
	KPP E2									
	KPP E3									
Social Benefits	KPP S1									
	KPP S2									
	KPP S3									

Table B.3: Example of Output Table for tracking, quantifying, and measuring anticipated disbenefits/harms or any other impacts not included under “benefits.”

Group negative impact (environmental, social, economic, health, etc.)	List negative impact metrics or parameters (negative impact parameters (NIPs)) per task in separate rows that will be used to measure success of the proposed task.	Direct, indirect, or cumulative impact	List the current state of technology or NIP measurement or estimate that has been reported to-date. Use this column to establish the baseline If unknown at start of project, indicate “Unknown”	If applicable: List an intermediate target that builds upon the Baseline Measurement and can be used to assess progress of the reducing the NIP.	List the proposed end target of the approach to reduce the NIP. This should be the goal of the proposed task over the funding period and uses the same parameter as the Baseline Measurement and Intermediate Target listed.	List the units of the measured parameter, if applicable.	Describe how the NIP Baseline Measurement was determined. For unit operation tests/ experiments include hours of steady-state operation and important operating conditions.	List the duration and scale of the Baseline, Intermediate, and Target KPP (e.g., Modeled, measured in laboratory, measured in field at X scale)		
								Baseline Measurement Duration and Scale	Intermediate Target Duration and Scale	Proposed End Target Duration and Scale
Negative Impact Classification	Negative Impact Parameter (NIPs)	Direct or indirect investment or outcome	Baseline Measurement	Intermediate Target	Proposal End Target	Units	Data Basis / Measurement Description	Baseline Measurement Duration and Scale	Intermediate Target Duration and Scale	Proposed End Target Duration and Scale
Environmental Disbenefits/harms	NIP 1									
	NIP 2									
	NIP 3									
Social Disbenefits/harms	NIP 1									
	NIP 2									
	NIP 3									

Table B.4: Example of Output Table for evaluating the flows of project benefits and disbenefits/harms to communities/groups.

Benefits or Disbenefits/harms Classification	KIPP or NIP	Community/Group 1			Community/Group 2			Community/Group 3		
		Community/Group Impacted (Y/N)	Qualitative Assessment of Extent of Impact	Quantitative Assessment of Extent of Impact (Percentage of expected flow)	Community/Group Impacted (Y/N)	Qualitative Assessment of Extent of Impact	Quantitative Assessment of Extent of Impact (Percentage of expected flow)	Community/Group Impacted (Y/N)	Qualitative Assessment of Extent of Impact	Quantitative Assessment of Extent of Impact (Percentage of expected flow)
Environmental Benefits	KPP E1									
	KPP E2									
	KPP E3									
Social Benefits	KPP S1									
	KPP S2									
	KPP S2									
Environmental Disbenefits/harms	NIP E1									
	NIP E2									
	NIP E3									
Social Disbenefits/harms	NIP S1									
	NIP S2									

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