

**HERE IS AN EXAMPLE OF HOW YOU MIGHT STRUCTURE YOUR WORKSHEET SO THAT YOU EACH KEEP A PARALLEL SET OF NOTES THAT ARE EASY TO JOIN**

**Question 1: (example) Do campus climate action plans need political support? From whom?**

*[as you read, you would take notes about how your study answers this question—samples below]*

*Study A: does not answer*

*Study B: In reviewing 6 campus climate plans, the XYZ team found that political support from the University president was essential to staying on track with mitigation action (citation). Specifically, XYZ.*

*Study C: In their detailed study of one business, XYZ author found that the plan could actually go ahead without specific endorsement by the CEO.*

**Question 2: What do students learn when they help lead climate action plans? Do they find it rewarding?**

*Study A: In interviews with 6 campus leaders, XYZ authors found that students who led in climate action planning went on to rule the world*

*Study B: does not address student involvement*

*Study C: In their detailed study of one business, XYZ author found that employees enjoyed the break from their siloed work duties provided by thinking about the business as a complex ecosystem ...*

**HERE IS AN EXAMPLE OF WHAT YOU ARE BUILDING TOWARD**

*Here is an example of a quick summary of peer-reviewed studies that one of my grad students wrote in response to some questions we had ... this is a little bit more like what I would aim for (toward) for your final lit review summary, which I expect to be 5-6 pages single spaced.*

**WHAT ARE THE IMPACTS OF ENERGY TRANSITION FOR RESOURCE-DEPENDENT ECONOMIES?**

**[the literature says ... ]** For coal-dependent communities, states, and regions, the energy transition brings a set of social, economic, and environmental impacts that vary greatly by geography (Carley, Evans, Graff, Koninsky, 2018). Studies examining the economic impacts of decarbonization tend to focus on job loss, and have highlighted the challenges associated with the readily available jobs - which often come with a lower salary (Jolley, Khalaf, Michaud, & Andler, 2019) or are not geographically aligned (Pai, Zerriffi, Jewell, Pathak, 2020; Carley, Evans, Konisky, 2018). Even more concerning, recent studies have highlighted the risks of fiscal collapse seen when the decline of a dominant industry leads to downward spirals and collapse of local government fiscal conditions (Morris, Kaufman, Doshi, 2019). This includes the inability to raise revenue, repay debt, or provide basic public services (Haggerty et al, 2018).

**HOW DOES THE ENERGY TRANSITION INTERSECT SOCIAL VULNERABILITY? IS THERE A PROCESS FOR ASSESSING VULNERABILITY FROM ENERGY TRANSITIONS?**

Concerns about the socioeconomic impacts of decarbonization under the framework of the “Just Transition” (Newell and Mulvaney, 2013) have motivated research that examines the spatial distribution of impacts and how they may interact/layer with existing factors to exacerbate social vulnerabilities. Social vulnerability describes characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist, and recover from adverse situations (Climent-Gil, Adelo, Vallejos-Romero, 2018). Many studies have focused on employment factors (concentration of employment in high-risk hydrocarbon industries), and the relative importance of the hydrocarbon industry in the county (resource dependence), and socioeconomic indicators (poverty, education)

(Snyder, 2018). While others have examined how energy system changes will affect sensitive populations' ability to cope with high electricity prices (Carley et al, 2018b). Furthermore, Brosemer et al (2020) describe how the COVID-19 pandemic has illuminated the compounding public health, economic, and justice crises with respect to existing crises in tribal energy sovereignty. The authors highlight the major point of concern is how energy access is essential to how communities grapple with protecting public health and recovering from the economic impacts of the pandemic ([Brosemer et al, 2020](#)). In this vein, we argue that it is essential to focus our attention on the relationship between the combined loss of revenue from both electricity generation and coal mine production, the provision of critical government services, and social vulnerability. This focus will support the development of a fuller picture of how decarbonization will impact the ability of coal-reliant communities to cope with the impacts, and thus inform the tools needed to support a Just Transition.

### **WHAT IS SOCIAL IMPACT ASSESSMENT AND IS IT RELEVANT TO STUDYING IMPACTS OF THE ENERGY TRANSITION ON COMMUNITIES?**

To respond to the need for a comprehensive transition impact assessment, this research applies/draws from tools from the international field of impact assessment. The practice of social impact assessment (SIA) is used to identify and manage the social risks prior to an industrial project or implementation of policy (Esteves et al, 2012). In the field of SIA, several trends point to the applicability of SIA as a tool for regional economic/energy transition: cumulative impacts and social impact of closure. Researchers have been advocating for the increased use of cumulative impact assessments that focus on the successive, incremental and combined impacts of one, or more, activities on society, the economy, and the environment (Franks et al, 2013). In both cases SIA and CIA are both most often initiated at the onset or early stages of project development, and have only recently been applied in the context of mine closure (Bainton and Holcomb, 2018; Everyingham and Mackenzie, 2019). Our findings about revenue impacts on social vulnerability will inform this emerging international community about end-of-life industrial transitions, providing insight into how to design and execute impact assessment and regional planning processes to enable equitable participation by indigenous people.

**ENERGY JUSTICE/JUST TRANSITIONS** The Just Transition literature emerged from organized labor (Rosemberg, 2010). Today, the concept speaks to two relevant literatures - transitions and energy justice. First, the concept of 'transition' has gained increasing currency in political discourse as governments plan for a low-carbon future. It also speaks to a larger set of literature on socio-technical transitions (Geels 2005; Geels and Schot 2007) or deep structural changes in systems that involve long-term and complex reconfigurations of landscapes with technology, policy, infrastructure, scientific knowledge, and social and cultural practices towards sustainable ends (Newell and Mulvaney, 2013). Increasing recognition of the need to ensure proposed energy transitions ensure fairness through equal distribution, full recognition of rights and labor contributions, and equal participation in decision-making procedures (Newell and Mulvaney, 2013; Healy and Barry 2017). Second, the energy justice literature has identified core tenets of an energy justice framework - distributional justice, procedural justice, recognition justice, and restorative justice (Carley & Konisky, 2020). The intersection of these two literatures establishes the importance of explicit attention to equity and justice in the planning, implementation, and assessment processes that shape the energy transition. [transition sentence to limited research on indigenous-led transition processes - need to check IEEFA]