

ENERGY TRANSITION PLAN

This project will result in the creation of an Energy Transition Plan (“the Plan”) with a goal of 100% renewable energy electricity by 2035 and 100% renewable energy for all uses by 2050 in a fair and inclusive transition process. It should be noted that this project is intended to not only affect municipal operations, but rather all uses, including residential, commercial, business, industrial, educational, retail, and transportation.

Cadmus has broken the project into five tasks which are summarized below:

Task 1 – A kickoff meeting (via video conference) with members of the WCACOG to provide Cadmus with a better understanding of our objectives, stakeholder engagement, and the schedule for the Plan.

Task 2 - The creation of an advisory group that will include a representative from each municipality, a representative from the DVRPC, other representatives as determined by WCACOG, and eight stakeholders from the West Chester area. Cadmus will interview the stakeholders to obtain their input on how to address their specific needs and challenges. A community visioning session will be held to solicit input from the general public. A website will be created to provide information to the public on the project. A summary of the results will be compiled for use by the advisory group.

Task 3 – Cadmus will compile a list of policies based on the stakeholder interviews and community visioning session, and for each policy, identify and assess the various barriers and opportunities that exist for its implementation. They will then prepare a policy summary matrix that will summarize the above information. Cadmus will also identify up to eight sites that may be suitable for renewable energy or energy storage.

Task 4 – Cadmus will identify the current mix of electric power sources for the West Chester area. A business-as-usual forecast of the electric power mix will be developed for use as a baseline. The impacts of the various policies identified in Task 3 will be modeled to determine the expected energy, financial, and economic impacts on this baseline. The various policies will be analyzed and grouped as appropriate, and Cadmus will prepare a memo summarizing the above information and how it helps to achieve the 100% renewal energy goal.

Task 5 – The final Plan, including short-, medium-, and long-term objectives will be developed. Specific action items will be identified for the short- and medium-term objectives. Generalized steps will be identified for the long-term objectives. Cadmus will present the plan at a public meeting.

Attached are the applicable pages from their proposal.

3. Approach to Project

The following section describes the Cadmus team’s approach to accomplishing the tasks laid out by West Chester Area Council of Governments (WCACOG) in its RFP. The West Chester Area Council of Governments, representing West Chester Borough and the townships of East Bradford, West Whiteland, West Goshen, East Goshen, Westtown, and Thornbury, will hereby be referred to as *WCACOG*, and the multi-jurisdictional area it represents will be referred to as *the West Chester Area*.

Task 1. Kickoff Meeting

At the outset of the project, the team will first conduct a scoping call with WCACOG to further hone the scope of the project together and to better understand the regional vision, objectives, and constraints. The scoping call will include WCACOG’s preferences on key aspects of the project including the breadth and depth of the stakeholder engagement process, project schedule, deadlines for key deliverables and the timing of regular check-ins.

Key Deliverables:

- Kickoff call with WCACOG
- Finalized scope of work
- Gantt chart

Task 2 - Stakeholder and Community Engagement

Task 2a. Project Advisory Group Formation and Intake Interviews

To obtain feedback from key stakeholders in the West Chester Area, Cadmus will work with WCACOG to assemble an advisory group. This core working group will be comprised of a representative from each city, along with at large representatives from the DVRPC and potential additional members as suggested by WCACOG. The Project Team will call on this advisory group to provide critical input and feedback throughout the Renewable Energy Planning process.

As part of its initial outreach, the Project Team will conduct up to eight individual “intake interviews” with these advisory group members. The intake interviews will focus on understanding directly from key stakeholders their priorities, concerns, and preferences for renewable energy implementation. Furthermore, it will allow the Project Team to understand perspectives from members of each of the seven communities. The individualized nature of the interviews will allow for insights to be shared that might not otherwise be discussed at a meeting with additional stakeholders. These conversations can serve to build initial stakeholder support as well as demonstrate inclusion by inviting stakeholders to interview who may not be strong supporters of the renewable energy plan. It can allow stakeholders to air their concerns in a format that will not detract from a larger group discussion. Overall, the intake interviews will inform the development of the materials for the Advisory Group Meeting (Task 2b).

Task 2b. Advisory Group Meeting

The Project Team will meet in-person with WCACOG, and selected stakeholders (potentially Advisory Group). This meeting would involve reviewing the agenda for the broader Community Visioning Workshop and to solicit detailed feedback from members on discussion topics in advance of the

Community Visioning Workshop. A key conversation will be confirming WCACOG’s energy goals, which will involve defining what methods of generation will count as renewable. The small group meeting will also serve as an initial opportunity for the Project Team to identify preferences and common barriers shared by the seven communities. The small group would discuss topics likely to be raised by attendees at the broader meeting and strategize as to how to frame the conversation most productively. Holding this meeting in advance of the public workshop will allow the Project Team to review material with the advisory group before making a full public presentation and will allow for a more detailed discussion as a small group.

Task 2c. Community Visioning Workshop

Later in the day (likely in the evening to allow for greater community attendance), WCACOG and Project Team would hold a launch meeting in a central location with community, and advisory group members. This professionally-facilitated workshop will seek to identify different community perspectives on municipal energy goals and priority, and to discuss the community’s specific needs, challenges, and goals for the project. Holding this stakeholder meeting at the outset of the project will ensure the team can best align tasks with goals. Discussion questions and presentation topics will be developed with WCACOG in advance of the meeting.

At the stakeholder workshop, a group visioning exercise will guide the process for establishing a community-wide vision for achieving the WCACOG’s Renewable Energy Targets. Preliminarily, discussion topics will include:

- **Priorities:** *What are the group’s key drivers and priorities for renewable energy implementation?* Communities are motivated to transition to 100 percent renewable energy utilization for a variety of reasons. Identifying which one or more of these are key drivers is a critical step in determining the most effective path for implementation of renewable energy for the community. For instance, a few potential priorities may include reducing energy costs, reducing GHG emissions, and strengthening local economic development.
- **Collective Vision of Success:** *What tangible changes would be evident in our community if WCACOG were achieved its 100 percent renewable energy goals?* This might include increased financial strength (e.g. average reduction in energy bills for households and businesses), greater resilience (fewer power outages during storms), and economic or other co-benefits (local energy jobs).
- **Obstacles:** *What have been obstacles to renewable energy implementation thus far?* What would mitigate these obstacles? This may include policy constraints, stakeholder opposition, or other challenges. Clarifying these upfront allows the community and Project Team to learn from past pitfalls and focus efforts on moving forward.

Following this round of stakeholder engagement, the Project Team will prepare a memo that summarizes the findings from the intake interviews, Advisory Group Meeting, and Community Visioning Workshop and identify how these outputs will inform later tasks.

Task 2d. Ongoing Public Education and Outreach Support

The Project Team will develop a simple project website to house outreach materials and deliverables, which will serve to keep the community updated after the community meeting. Cadmus will make regular updates to this website, describing project progress and posting interim task deliverables.

Members of the Project Team will also be available to call in to public or stakeholder meetings as appropriate to support WCACOG members in updating community members and elected officials on progress.

Key Deliverables:

- Eight individual intake interviews
- In-person Advisory Group Meeting
- Community Visioning Meeting
- Memo summarizing findings from interviews, Advisory Group Meeting, and Community Visioning Workshop
- Project website and outreach materials

Task 3. Policy Options and Barriers Analysis

Task 3a. Compilation of Policy Options

Based on the initial community visioning workshop with WCACOG, as well as Cadmus’ prior work with municipal governments nationwide, the Project Team will compile a list of strategy options that were either directly identified by WCACOG and other relevant stakeholders or are based on best practices that could align with WCACOG’s goals.

Based on its *Pathways to 100* report and prior local energy planning projects, Cadmus has developed a preliminary list of more than two dozen actions that may be included in such a roster of potential policy actions across multiple technologies. Actions included may include, for example, direct use of municipal legal authority, use of the city’s convening abilities or the creation of community-based programs, partnerships with utility or state organizations to implement innovating tariff, financing, or incentive programs, transportation electrification or demand management strategies, and other emerging local government policy strategies. The Project Team will revise the resulting list based on stakeholder feedback and WCACOG’s interests to develop a custom set of policy options for evaluation in this effort.

The Project Team will look at options that deploy the hard powers of WCACOG member governments — options to use city resources to act locally and to use city authority to require local action. This will include exploring opportunities for collaboration with other parties to act regionally or statewide, including engagement of county or state government to take steps to allow for greater action, and cooperation with legislators, regulators, or agency staff.

Task 3b. Barriers and Opportunities Assessment

For each policy or program option of interest, the Project Team will assess the feasibility and expected impacts of such an effort within Pennsylvania’s policy and regulatory structure. The research will be specific to Pennsylvania’s energy context, drawing on our extensive experience with state municipalities and utilities, and the regional expertise of the Advisory Staff. The project team will conduct desk research to evaluate relevant barriers and opportunities, consulting regional installation databases, integrated resource plans, and other independent studies where available. Considerations for the barriers and opportunities research may include the type and scale of each action and strategy, and county cost-effectiveness and general effectiveness (low to high) and feasibility of the policy options.

This work will be done in consultation with the project advisory group to provide additional insights related to key barriers, potential existing gaps, and opportunities for continued renewable energy penetration. The Project Team will coordinate with WCACOG to conduct outreach to key stakeholders and will utilize the deep local knowledge of its project partners to ensure that local policy issues are reflected in the assessment of barriers and opportunities.

Based on this assessment, the Project Team will develop a policy summary matrix which provides qualitative descriptions of the feasibility, scalability, and impact of various policy options. The Project Team will share the list of potential strategies and policy matrix with the Advisory Group.

Task 3c. Potential Renewable Energy and Energy Storage Site Identification

Informed by stakeholder conversations, the Project Team will identify and compile a short list of potential sites for renewable energy or energy storage site development. The Project Team will conduct high-level pre-feasibility assessments for up to eight sites, taking into account factors such as available land area, proximity to power lines, and other factors informing site feasibility. Given budget constraints, our team anticipates that this study will be high-level. However, our team does provide no-cost technical assistance through the U.S. Department of Energy's SolSmart program. If WCACOG communities are interested in pursuing a more in-depth feasibility analyses solar specifically, our team can provide this type of technical assistance through the SolSmart program.

Key Deliverables:

- Memo detailing potential policy options including barriers
- Strategy analysis matrix comparing the options
- Pre-feasibility assessment of eight sites

Task 4. Policy Impact Modeling

In Task 4, the Project Team will identify the likely energy and financial impacts of a set of programs of interest to the West Chester Area, as well as a range of scenarios that reflect high concentrations of renewable energy and their associated costs.

The Project Team will first conduct research on the current mix of electric power sources for the West Chester Area, and develop a business-as-usual forecast of likely changes in electric power mix during the planning period.

From this baseline, the Project Team will assess the likely energy impacts (as well as the associated greenhouse gas emissions reductions) of each strategy selected in Task 3 above towards WCACOG's renewable energy goal, as well as the potential direct costs and benefits to the communities associated with each opportunity. The Project Team can draw on its existing database of local government policy impacts, as well as its existing city energy model, to conduct this work efficiently.

Following this analysis, the Project Team will present and discuss these results with the Advisory Group and would develop one or several packages of policy actions items which could be combined to comprise a renewable energy transition plan.

For each policy package, Cadmus will then create a wedge analysis which displays the results of this energy impact assessment and which discussed the contribution that each specific action within a policy

scenario would have in bringing WCACOG toward its renewable energy goals. Cadmus will provide an analysis memo to synthesize the results of this analysis, and characterize the expected energy, and economic impacts of each policy and package.

Key Deliverables:

- Analysis memo summarizing (1) each community's current energy mix and expected baseline power mix forecast, (2) policy actions and scenarios selected for quantitative impact assessment, (3) expected energy, financial, and economic impacts of various policy actions and scenarios, and (4) wedge analysis demonstrating progress towards 100% renewable energy goal of each policy scenario

Task 5. Renewable Energy Plan Development

Based on the outcomes of the above research tasks and stakeholder feedback, the Project Team (with the advice and review of the Advisory Group) will develop a roadmap for WCACOG's renewable energy goals. This plan will use the conclusions of the policy research and community planning process to identify actions of broad interest in the West Chester Area and utilize the results of the impact assessment and feasibility study to identify the projected energy impacts, costs, and savings of these actions. The process for input on the plan will have the following major steps:

- **High-level plan:** The Project Team will identify the strategies from the matrix that best align with local goals. For each strategy selected, the team will identify key steps in execution and produce a summary document that outlines the major strategies and associated action steps.
- **Input from City and Community Advisory Group:** The Project Team will share the high-level summary document with the Community Advisory Group to ensure that the overall direction aligns with local needs and challenges.
- **Full action plan:** The Team will make final adjustments to the high-level plan based on input from the Advisory Group and compile a full action-plan for WCACOG's transition to utilizing 100 percent renewable energy will include short-, medium-, and long-term opportunities. Long-term opportunities will summarize high-level steps needed to create the environment to move forward with increasing renewable energy sources (e.g. establishing an on-going commitment from a broadened Advisory Group, passing additional local legislation). The short- and medium-term levels will provide action-steps for the selected strategies such as directed guidance on engaging residents, securing funding, and adjusting program policies.
- **Community presentation: Following the completion of the full action plan, the team will deliver an in-person presentation of final results in a public meeting in the West Chester area. The project team will work with WCACOG members and the community advisory group to promote the meeting and invite community participation.**

Upon review of the action plan by the WCACOG and key stakeholders, the Project Team will address any feedback and develop a final deliverable. The project will conclude with an in-persona—remote presentation to present the final results and recommendations.

Key Deliverables:

- A final Renewable Energy Transition Plan for WCACOG area, including short-, medium-, and long-term goals
- A final public presentation WCACOG and advisory group members of the full action plan

Proposal to Provide Renewable Energy Planning Services to West Chester Area Council of Governments

February 19, 2019

Revised Cost Proposal

The Project Team proposes to deliver the scope of work above for a budget (including labor and expenses) of \$75,000. Cadmus proposes offering each task at a fixed price amount. A budget by task is provided in Table 1 below. The Team proposes for two Cadmus staffers to attend the in-person meetings with WCACOG.

Table 1 Proposed Budget

Task	Budget
Task 1: Kickoff Meeting	\$600
Task 2: Stakeholder and Community Engagement	\$22,500
Task 3: Policy Options and Barriers Analysis	\$16,200
Task 4: Policy Impact Modeling	\$12,000
Task 5 Renewable Energy Plan Development (including in-person final presentation)	\$21,600
Travel Expenses (two trips)	\$1,800
Workshop Refreshments and Materials (two trips)	\$300
Total	\$75,000

The set of activities and tasks proposed by the project team do not easily scale with the number of communities that would participate in a community energy planning effort. Therefore, the Project Team proposes the same basic cost structure regardless of the number of participating communities.