REQUEST FOR PROPOSALS

Atlanta Regional Landuse Modeling and S16 Small Area Forecasting

The Atlanta Regional Commission (ARC) is seeking proposals from firms or a team of firms to complete the development of ARC’s integrated landuse model, with the Production, Exchange and Consumption Allocation System (PECAS) structure as the foundation, and to develop the Serials 16 (S16) Small Area Forecasts by running PECAS integration with ARC’s regional activity-based travel demand forecasting model (ABM). The Scope of Services for the work is attached in Exhibit A and provides information regarding the level of effort required, as well as specific tasks to be accomplished. The Consultant will be responsible for completing the model improvements and calibration, generating S16D (Draft S16) small area forecasts, and modeling planning scenarios with the purpose of applying and testing the model. The Consultant will also assist ARC to analyze scenario modeling results and finalize the 2050 S16 air quality conformity forecasts by running the integrated PECAS.

It is anticipated that approximately $150,000 will be available for this project. Any contract award for this study is contingent upon ARC receiving adequate funding for this purpose from federal, state and local agencies participating in this project. ARC reserves the right to award all or part of the available funds for this project.

ARC expects to award this contract in the second quarter 2019 with all the work to be completed by second quarter 2020. Successful firms or team of firms should be prepared to begin work immediately upon contract execution.

Firms or teams of firms must respond to this RFP with hardcopy and electronic proposals in either MS Word compatible format or a PDF file. Proposal evaluation will focus initially on the written proposals. Should it be determined that interviews are required, a ‘short list’ of firms will be selected from the proposals received.

Interested firms should submit a proposal that addresses the requirements listed below and the Scope of Services in Exhibit A. The consultants should provide a detailed breakdown of the proposed budget and task breakdown following the general formats provided in Exhibit B and B-1.

Proposals must include the following to be considered responsive:

1. The name of the lead firm and any sub-consultants.
2. Point of contact (name, title, phone number, mailing address, and email address) at lead firm.
3. Qualifications and technical competence of consultant/ or sub-consultants in the type of work related, including developing and calibrating the landuse model, small area
socioeconomic forecasting, spatial and economic data required to develop the land use model and activity-based travel demand forecasting model.

4. Description of experience on similar projects including at least three references within the past five years, with current contact information.

5. Identification of personnel who would work on the project and their qualifications.

6. A detailed description of the technical approach proposed for accomplishment of the work.

7. A proposed schedule and work plan for the accomplishment of the work described in Exhibit A.

8. Current workload and availability of such personnel in all required fields of expertise.

9. A proposed project budget in the format at Exhibits B and B-1.

10. A DBE Utilization Plan in the format of Exhibit C.

11. Any other pertinent information.

The review of written proposals will be based on the following evaluation criteria, with relative weights in parentheses:

1. Related experience, strength of qualifications, versatility in subject matter expertise, and references of the firm or project team (50%)

2. Technical approach (30%)

4. Work plan and schedule (10%)
   Note: this includes consultant’s ability to demonstrate a balanced workload for its staff to carry out its responsibilities to ARC in balance with any other contracts Consultant may have.

5. Proposed project budget. (10%)

It is the policy of ARC that Disadvantaged Business Enterprises (DBEs) (49 CFR Part 26) have the maximum opportunity to participate, either as contractors or as subcontractors, in the performance of Commission contracts to the extent practical and consistent with the efficient performance of the contract. ARC’s DBE goal for FY 2019 is 15.64%. Information regarding ARC’s DBE Program can be found at https://atlantaregional.org/about-arc/business-services-finance/arc-business-opportunities/

Additional information should not be required to respond to the RFP. However, technical questions should be submitted in writing to Wei Wang no later than 4:00pm on April 19, 2019. Written questions should be emailed to the address provided above or submitted by email to wwang@atlantaregional.org. All questions received, and responses to those questions, will be posted to ARC’s website no later than 4:00pm on Tuesday, April 23, 2019.
ARC must receive one (1) hard copy and one (1) electronic copy in digital format, either in MS Word or PDF format, not later than 4:30pm on Friday, May 3 2019.

Proposals shall not exceed a total of 20 single-sided pages (8.5” x 11”) or 25 double sided pages, inclusive of resumes and firm experience. Cover, end sheets, budget exhibits, DBE documentation, and introductory letter shall not count against this maximum. Font size shall be a minimum of 12 point in all cases.

Proposals must be submitted to the following address:

Atlanta Regional Commission  
ATTN: Wei Wang  
International Tower  
229 Peachtree Street NE, Suite 100  
Atlanta, Georgia 30303-2538

If interviews are necessary, the short-listed firms will be invited to participate in an interview process with the evaluation committee to be held during the week of April 29, 2019 (tentative). ARC reserves the right to award this contract based on initial proposals received without formal interviews and to award all or part of this project to one or more firms.
EXHIBIT A

Scope of Services

I. General:
The work to be accomplished by the consultant is in support of the following ARC work program component:

Cost Center – 906ELM- Land Use Model Development Support

II. Purpose:
The Atlanta Regional Commission’s PECAS (“Production Exchange Consumption Allocation System”) model began development in the year 2008. It is a spatial economic model for the 20-County Atlanta Region. Its main purpose is to simulate the future location of activities (industries, households and government), and the development of space by developers, for both small area socioeconomic forecasting and policy analysis. PECAS will generate the forecasting data for ARC’s activity-based travel demand forecasting model (ABM). ARC’s PECAS has been used to support previous regional air quality conformity forecasts. Currently ARC is the process of updating the PECAS model with more landuse zones as well as improving the integration with ARC’s regional economic model with consistent employment categories. The purpose of this contract is to finalize the ARC’s PECAS calibration and improvements, develop modeling scenarios, and assist ARC to develop the 2050 S16 small area forecasts.

III. Modeling and Forecasting Area:
The Consultant shall perform all the necessary service, develop the PECS and S16 forecasts for twenty Counties Atlanta Region including: Barrow, Bartow, Clayton, Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale, Carroll, Coweta, Forsyth, Hall, Newton, Paulding, Spalding, and Walton.

IV. Work and Services:
This section contains the scope of service. The Consultant shall do, perform and carry out, in a satisfactory and proper manner, as determined by the Atlanta Regional Commission (ARC), the following work and services.

Task 1: Forecasts Modeling and S16D (Draft S16) Small Area Forecast Development

The consultant with work with ARC staff to update the regional socioeconomic forecasts in the PECAS database and develop the forecasting scenario. The consultant and ARC forecasting team will work with ARC travel demand modeling team to run the integrated PECAS and ABM
forecasting runs to generate the draft small area socioeconomic forecasts and analyze the modeling results.

The products of this task are S16D small area forecasts and related modeling result analysis and documentation.

**Task 2: Model Improvements and Calibration**

ARC is currently in the process of migrating PECAS to census tract based landuse zones and improving the integration with ARC’s regional economic model with consistent employment categories. The consultant will complete the model development and calibration to better support ARC’s air quality conformity forecasting. The consultant will complete and test following model functional improvements:

- Start-Stop Manual Adjustments after each year model run;
- Site Spec Functionality in the PECAS Space Development Module;
- TAZ Development Capacity Constraint Functionality;
- Updated MapIt (PECAS output visualization application)

The product of this task is the updated PECAS integrated with ABM.

**Task 3: Integrated Scenario Development, Model Testing and Result Analysis**

The consultant will work with ARC to test the sensitivity of the updated PECAS, develop and model the planning scenarios, and analyze scenario results. The model will be calibrated and adjusted based on the scenario modeling results and analysis. The consultant will also work with ARC forecasting team to process the current parcel data, zoning data, and ARC’s regional policy data (UGPM) to improve the model performance and prepare the air quality conformity forecasting scenarios.

The products of this task are updated input data for PECAS including parcels and zoning data, and PECAS Planning Scenario #1, #2, and #3 with modeling result analysis and documentation.

**Task 4: Integrated Modeling with ABM and S16 Small Area Forecasting Development**

The consultant will work with ARC to run the integrated PECAS with ABM to develop the final S16 Small Area Socioeconomic Forecasts.

The products of this task are final S16 Small Area Socioeconomic Forecasts and related modeling result analysis and documentation.
Task 5: Staff Training and Summary Documentation

The consultant will complete the documentation with the details about model development and S16 forecast modeling and result analysis. The consultant will also provide training to ARC staff about running PECAS, setting up scenarios, model adjustment and modeling result analysis.

The products of this task are ARC Staff PECAS Training and summary documentation for ARC PECAS application.
**EXHIBIT B**

**Proposed Project Budget**

1. **Direct Labor**  
   Estimated Hours  |  Rate/Hour  |  Total Est. Cost  
   (List by position all professional personnel participating in project)  
   **Total Direct Labor**  
   $__________  

2. **Overhead Cost** (OMB circulators A-87 and A-122)  
   (Overhead percentage rate) X (Total Direct Labor)  
   **Total Overhead**  
   $__________  

3. **Other Direct Costs** (List other items and basis for computing cost for each. Examples include computer services, equipment, etc.)  
   **Total Other Direct Costs**  
   $__________  

4. **Subcontracts** (For each, list identity, purpose and rate)  
   **Total Subcontracts**  
   $__________  

5. **Travel**  
   a. Travel by common carrier from/to the ARC offices. (List number of trips and economy class airfare, plus taxi and shuttle fares, etc.)  
   b. Travel by private automobile within ARC area. (List # of days x rate)  
   **Total Travel**  
   $__________  

6. **Profit** (Percentage rate X basis)  
   **Total Profit**  
   $__________  

**Total Estimated Cost and Profit**  
$__________
EXHIBIT B-1

Proposed Project Budget – By Task

<table>
<thead>
<tr>
<th>Task #1</th>
<th>Forecasts Modeling and S16D Small Area Forecast Development</th>
<th>$_______</th>
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<tbody>
<tr>
<td>Task #2</td>
<td>Model Improvements and Calibration</td>
<td>$_______</td>
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<tr>
<td>Task #3</td>
<td>Integrated Scenario Development, Model Testing &amp; Analysis</td>
<td>$_______</td>
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<td>Task #4</td>
<td>Integrated Modeling with ABM and S16 Small Area Forecasting</td>
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<td>Task #5</td>
<td>Staff Training and Summary Documentation</td>
<td>$_______</td>
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<tr>
<td>Total Contract Cost</td>
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EXHIBIT C

Title VI and DBE Requirements
For Prime Contractors and Sub-grant Recipients

TITLE VI

ARC, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000D to 2000D4, and Title 49, Code of Federal Regulations, Department of Transportation Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally assisted programs of the Department of Transportation, issued pursuant to such Act, hereby notifies all Respondents that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises shall be afforded full opportunity to submit proposals in response to this invitation and shall not be discriminated against on the grounds of race, color, sex, handicap, or national origin in consideration for an award.

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

Overall DBE Goal: As part of its DBE Plan, ARC has an established overall goal of 15.64 percent.

Program Intent. ARC has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26 ("Part 26" or "DBE Regulations"). ARC has received federal financial assistance from the Department of Transportation for this contract opportunity, and as a condition of receiving this assistance, ARC has signed an assurance that it will comply with Part 26.

It is the policy of ARC to ensure that DBEs, as defined in Part 26, have an equal opportunity to participate in its DOT-assisted contracting opportunities. It is also ARC’s policy:

(a) To ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department's highway, transit, and airport financial assistance programs;
(b) To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
(c) To ensure that the Department's DBE program is narrowly tailored in accordance with applicable law;
(d) To ensure that only firms that fully meet this part's eligibility standards are permitted to participate as DBEs;
(e) To help remove barriers to the participation of DBEs in DOT-assisted contracts; and
(f) To assist the development of firms that can compete successfully in the marketplace outside the DBE program.

**Definitions.** Disadvantaged Business Enterprise (DBE) as used in this Contract shall have the same meaning as defined in 49 CFR Part 26. A DBE is a firm in which one or more individuals who are women or eligible minorities own and control at least 51% of the firm.

**Compliance.** All Bidders/Proposers, potential contractors, or subcontractors for this Contract are hereby notified that failure to carry out the policy and the DBE obligations, as set forth above, shall constitute a breach of Contract which may result in termination of the Contract or such other remedy as deemed appropriate by ARC.

**Prompt Payment Requirement.** In the event of contract award, the prime contractor agrees to pay each subcontractor under the prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contract receives from ARC. The prime contractor agrees further to return retainage payments to each subcontractor within 10 days after the subcontractors work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of ARC. This clause applies to both DBE and non-DBE subcontracts.

Any contractor found not to be in compliance with this clause will be considered in breach of contract and any further payments will be withheld until corrective action is taken. If contractor does not take corrective action, contractor may be subject to contract termination.

**Substitution.** The Bidder shall make a good faith effort to replace a DBE Subcontractor that is unable to perform successfully with another DBE Subcontractor. Substitution must be coordinated and approved by ARC.

**Documentation.** The Bidder/Proposer shall establish and maintain records and submit regular reports, as required, which will identify and assess progress in achieving DBE subcontract levels and other DBE affirmative action efforts.

Additional information on ARC’s Disadvantaged Business Enterprise Program can be obtained from Brittany Zwald, Contract & Grants Officer, Financial Services Division, Atlanta Regional Commission, 229 Peachtree Street NE, Suite 100, Atlanta, Georgia 30303, 470-378-1494, bwald@atlantaregional.org.
DBE UTILIZATION PLAN

This plan will be included in a Title VI and DBE Attachment to all USDOT funded ARC bid and proposals.

Name of bidder/offoror’s firm: ____________________________

Address: ______________________________________________

City: __________________ ___ State: ______ Zip: ______

Name of DBE firm: __________________________

NAICS Code: ________________________________

Address: _______________________________________

City: __________________ ____ State: ______ Zip: ______

Telephone: ________________

Description of work to be performed by DBE firm:

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The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is $______________. The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By ______________________________________________________________________

(Signature)

___________________________________________________________________________

(Title)

If the bidder/offeror does not receive award of the prime contract, any and all representations in this DBE Utilization Plan shall be null and void.

(submit this page for each DBE subcontractor).

PLEASE ATTACH A COPY OF THE OFFICIAL DBE CERTIFICATION FORM