

State of Michigan
Civil Service Commission

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code
1. ENGINRAA21R

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency ENVIRON, GREAT LAKES & ENERGY
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission)
4. Civil Service Position Code Description ENGINEER-A	10. Division Materials Management
5. Working Title (What the agency calls the position) Building Trade Industry Engineer	11. Section Sustainability
6. Name and Position Code Description of Direct Supervisor WILKINSON, JACOB M; ENGINEER MANAGER-3	12. Unit Energy Services
7. Name and Position Code Description of Second Level Supervisor STAVELAND, JULIE C; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 525 W. Allegan St, Lansing Michigan / M-F; 8 a.m. – 5 p.m.

14. General Summary of Function/Purpose of Position

As a recognized resource, this position serves as the Building Trade Industry Engineer for EGLE's Energy Services, with responsibilities for supporting operations and maintenance activities within the public (state and municipal units of government and institutions) and commercial buildings' sectors. These duties include, but are not limited to, grant management; interfacing with the public; providing in-depth engineering technical assistance for optimization of energy intensive building operating systems; developing strategies for reducing energy consumption in building; benchmarking building operations; technical advising on performance contracting; authoring technical reports; and serving as a technical resource to EGLE on building matters.

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 50

As the recognized resource to the Building Trade Industry, the Engineer works within EGLE's Energy Services. The Engineer's primary responsibilities are providing in-depth engineering technical support to optimize energy intensive building operating systems for the state and municipal units of government, institutions, and commercial sectors. This position will assist building operators in development and implementation of energy waste reduction goals. It will strive to promote and coordinate the integration of efficiency technologies in building operations; support energy waste reduction building projects in the public and private sectors; lead pilot projects to promote and advance the Department of Energy/State Energy Program's mission; and collaborate with other both within and external to state government on energy issues.

Individual tasks related to the duty:

- Consult with municipal and commercial building operation managers regarding building management systems i.e., Heating, Ventilation, and Air-Conditioning (HVAC) monitoring and controls, lighting controls, plug load control, etc. and to discuss energy saving opportunities and financing options for energy waste reduction projects.
- Create and manage grant programs targeting areas of needs as identified through stakeholder outreach and emerging energy technologies.
- Analyze energy use and cost data to identify energy saving opportunities; conduct building energy assessments including The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level-I audits when appropriate and recommend operations and maintenance changes, new equipment and materials that reduce energy consumption; evaluate contractor proposals and audit recommendations for energy waste reduction projects; assist facility managers to develop systems to monitor and report energy use and costs; make follow-up contacts to identify successes, problems and need for further assistance.
- Develop and implement strategies under EGLE's Energy Services Manager's guidance to facilitate benchmarking of public buildings to identify building operations improvements, need for operator training, and other appropriate services.
- Educate building operators on the importance of advanced electrical diagnostics, HVAC optimization and integration of economizers, building re-commissioning, reactive power and power factor, enhanced automation, and overall demand reduction.
- Evaluate the quality of analyses prepared by outside consulting engineers for institutional assistance applicants; and determining if the calculations conform to standard engineering practice as required by federal and state energy program guidelines.
- Annually review and update technical assistance guidelines for engineering analyses of public institutions participating in EGLE's Energy Services' programs; conduct workshops for energy consultants and other program participants to assist them in developing successful, energy efficient renovation and new construction projects.

Duty 2

General Summary:

Percentage: 20

The Building Trade Industry Engineer will interface with the Michigan Public Service Commission (MPSC) Energy Waste Reduction Section and the Michigan Licensing and Regulatory Agency (LARA) Bureau of Construction Codes on building energy codes. This position will also facilitate the adoption and implementation of performance contracting in public (state-owned/occupied and leased, municipal, and schools) building and oversee retrofit projects when appropriate.

Individual tasks related to the duty:

- Interface and coordinate with the MPSC EWR Section and LARA Bureau of Construction codes on building energy codes in Michigan. Align work of the Michigan Energy Codes Compliance Collaborative with efforts of these, and other, partner organizations.
- Formulate and implement annual work plans for working with state agencies, local units of governments, schools, and stakeholders to accelerate use of performance contracting.
- Carryout strategies for utilizing performance contracting for energy waste reduction and renewable energy projects.
- Evaluate qualifications and technical proposals of contractors and energy service companies that are seeking performance contracts within the State of Michigan; offer trouble-shooting assistance to state departments and facility managers with energy-related projects.
- Provide technical support to the Michigan Energy Services Coalition (Michigan Chapter), as needed.
- Attend Chapter meetings and other events and engage in discussion on performance contracting matters impacting the state and stakeholders.
- Meet regularly with the Michigan Department of Technology Management and Budget (DTMB) and other state agencies on energy performance contracting issues.

Duty 3

General Summary:

Percentage: 10

Research and make recommendations on new energy efficient products and services. Keep abreast of new technologies, innovations, recommended best practices, etc.

Individual tasks related to the duty:

- Meet with vendors and consultants to analyze their products and services including building and energy automation system, analytics software and hardware, variable frequency drive applications, utility bill and energy management software, LED products and advanced lighting controls, etc.; visit facilities where energy-saving equipment and materials have been installed and determine its effectiveness; make recommendations about various technical training programs and information that promotes the use of specific energy waste reduction equipment, materials, and services.

Duty 4

General Summary:

Percentage: 10

Assist the Office staff with technical aspects of developing, implementing, and evaluating energy conservation programs, as needed.

Individual tasks related to the duty:

- Review program proposals, calculate potential energy and economic benefits, assist with quantifying outcomes, conduct staff training, and consult on energy savings measurement and verification.
- Verify the installation and operation of equipment purchased in whole and part with EGGLE's Energy Services funding.

Duty 5

General Summary:

Percentage: 5

Provide Education/Outreach Services.

Individual tasks related to the duty:

- Develop technical materials for facility manager and operators; make presentations on technical topics; and maintain contacts with engineering associations, utilities, vendors and manufacturers of energy waste reduction products and services, and public agencies, to solicit input on technical issues and program strategies.

Duty 6

General Summary:

Percentage: 5

Other duties as assigned by supervisor

Individual tasks related to the duty:

- Complete tasks assigned by supervisor, as needed.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Engineer selects applicable energy waste reduction measures for analysis; determines applicability and cost-effectiveness of proposed energy waste reduction projects. Makes recommendations on new products and services, which are based on research, since guidelines and instructions are not available. Analysis and recommendations can influence some purchasing decisions of facility managers and owners.

17. Describe the types of decisions that require the supervisor's review.

Supervisor provides guidance on how to conduct assignments, program priorities, and agency policies. Also, the Supervisor and/or other staff typically review information developed for publication by staff engineer.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Regular instate travel is required; occasional out-of-state travel may be required for training purposes. Inspection of hazardous areas such as mechanical rooms, steam tunnels, high voltage areas and rooftops is necessary. On-site energy studies may require some exposure to weather conditions and climbing and reaching into areas that are not easily accessible. Interior conditions of mechanical rooms and power plants may be dirty and poorly ventilated. Working in these conditions accounts for about 25% of the time spent conducting building energy studies.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

- | | |
|-------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work. |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> Approve work. |
| <input type="checkbox"/> Approve leave requests. | <input type="checkbox"/> Review work. |
| <input type="checkbox"/> Approve time and attendance. | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand. | <input type="checkbox"/> Train employees in the work. |

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes

23. What are the essential functions of this position?

See duties listed previously.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

Department name has been updated. Minor updates to duties, tasks, and percentages.

25. What is the function of the work area and how does this position fit into that function?

The State Energy Program is responsible for developing state energy waste reduction and renewable energy policies and programs.

This position serves as a senior energy waste reduction engineer for EGGLE's Energy Services with responsibilities for supporting operations and maintenance activities within the public and commercial building sectors. These duties include, but are not limited to, interfacing with the public; providing in-depth engineering technical assistance for optimization of energy intensive building operating systems; developing strategies for reducing energy consumption in building; benchmarking building operations; technical advice on performance contracting; managing building retrofit grant management; authoring technical report; and serving as a technical resource to Energy Services on building matters.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Possession of a bachelor of science degree in engineering.

EXPERIENCE:

Engineer 12

Three years of professional experience providing electrical, mechanical, or chemical engineering services equivalent to an Engineer, including one year equivalent to an Engineer P11.

KNOWLEDGE, SKILLS, AND ABILITIES:

Excellent interpersonal skills, including tact, diplomacy, an ability to negotiate and work well with people inside and outside the organization and by telephone or in person; excellent verbal and written communication skills; knowledge of the principles and practices of energy engineering and of accepted practices in preparing project plans, estimates, specifications, and contracts for engineering work; demonstrated research and analytical capabilities, ability to review and prepare technical reports and correspondence related to the work; ability to make comprehensive recommendations on engineering problems; and has excellent computer skills.

CERTIFICATES, LICENSES, REGISTRATIONS:

None

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

None

I certify that the entries on these pages are accurate and complete.

RYAN STARKWEATHER

5/27/2022

Appointing Authority

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date