Energy Design Assistance DSM Program
Scope Of Work for Energy Modeling Consultants

The Energy Design Assistance (EDA) Program scope of work outlines requirements for energy modeling companies to perform whole building energy design analysis. The EDA Program offers comprehensive energy design assistance to Xcel Energy business customers for new buildings, additions, or major renovations.

Qualifications for EDA Consultants: Energy modelers are chosen through a qualification criteria review to become a qualified consultant providing EDA services. Qualification opportunities will be open every two years or as the Xcel Energy deems appropriate. Consultants are paid on a pay for performance basis as follows:

- **Pay for Performance (P4P):** Energy consultants will be paid 25% of the owner’s total incentive for the Basic and Enhanced tracks, and 33% of the owner’s total incentive for the Express track. The owner’s incentive is currently based on $400/kW, $0.04/kWh, and $4.00/Dth. An average Energy Design Assistance project currently receives approximately a $92,000 incentive. In addition, energy consultants will be paid 4% of the owner’s incentive for each early analysis and certification conducted under the enhanced track (see below). Early analysis types include: massing, daylighting, HVAC, and early lighting. Certifications must be 3rd party verified and approved by Xcel Energy.
- **P4P payment schedule:** Energy consultant will be paid in three payments over the course of the project, based on estimated savings. Payment one after Final Energy Analysis is approved; payment two after CD report is approved; and payment three after M&V is approved.

The following scope of work is provided below for the EDA Consultants

1.0 Program Description
The Energy Design Assistance (EDA) is part of a suite of programs offered by Xcel Energy (“Company”) under the Business New Construction umbrella. Company has filed under its 2014 and 2015-2016 Demand-Side Management Biennial Plans for Electric and Natural Gas programs. This program is part of Xcel Energy’s comprehensive plan to reduce customer’s electrical and natural gas usage.

The New Construction programs are intended to influence building owners, architects, and engineers to include energy-efficient systems and equipment in their design for new construction and/or major renovation projects. The offering consists of two individual programs, Energy Design Assistance and Energy Efficient Buildings. Both programs are available to non-residential customers in Company’s electric and natural gas territory. This scope of work will be in reference to Energy Design Assistance only.

The Energy Design Assistance offering provides a source of energy expertise to encourage energy efficient building design and construction practices. The program offers design assistance in support of an integrated design process by providing customers comprehensive energy modeling of the planned design, funding to offset the cost of design time associated with the increased energy analysis, financial incentives
to improve the cost effectiveness of a package of energy-efficient measures, and field verification to ensure that measures are installed per the design intent. This program aims to cover most/all of the energy modeling costs for Company customers.

In addition to technical assistance, Company provides financial incentives to building owners to improve the cost-effectiveness of energy-efficient materials and equipment. Customer incentives are paid only after a verification process is completed, which typically occurs within two months of building occupancy. Verification ensures the measures are installed as proposed and adds confidence with associated savings.

Energy Design Assistance offers three tracks for customer involvement: (1) Basic, (2) Express, and (3) Enhanced. These tracks are for Company customers interested in the opportunity to participate in a collaborative design process and identify energy savings opportunities using new technologies and energy methodology.

**Basic Track Requirements:**

- Square footage: Greater than 20,000 sq.ft. (new construction, major renovation or addition).
- Design phase: Schematic Design or early Design Development for EDA application
- Energy Savings: 15% energy demand savings; 15% gas savings
- The Basic Track offers Pay for Performance (P4P) to the energy consultant of 25% of the owner’s incentive.

**The Express Track Requirements:**

The intent of the Express Track is to create a cost-effective analysis process for projects that can be fast-tracked with less energy modeling efforts. Buildings to consider fit the following criteria:

- Square footage: 20,000 to 50,000 sq.ft.
- Are a common building type
- kWh savings is estimated to be less than 3x the total building square footage
- The Express Track offers Pay for Performance (P4P) to the energy consultant of 33% of the owner’s incentive.

**The Enhanced Track Requirements:**

The EDA Enhanced track is for customers who have a more aggressive energy goal in mind and want to begin their analysis in pre-design. By taking a look at earlier design options there is greater flexibility to make decisions in such things as building orientation and daylighting. The Enhanced track also allows for further early analysis such as day lighting, mechanical system changes and 3rd party verified green building certifications.

The following requirements apply to the Enhanced track:

- Square footage: Greater than 20,000 square feet (new construction, major renovation or addition. (Enhanced track early analysis is not available to garages.)
- Design phase: Pre-design or Schematic Design for EDA application
- Energy Savings: 30% energy demand savings; 15% gas savings
• Must be registered with the US Green Building Council for LEED certification or show proof of participation in other Company approved 3rd party verified certification program.
• The Enhanced Track offers Pay for Performance (P4P) to the energy consultant of 25% of the owner’s incentive. Early analysis completed offers additional P4P of 4% per analysis.
2.0 Objectives

Energy consultant is required to provide Company with one main contact that is responsible for project in entirety, including all project details, status and reviews. Energy consultant will also provide individual names of supporting modelers on projects.

2.1 Project Assignments

In order to reach anticipated goals for the program, the energy consultant must start a minimum of three EDA projects per year. If new construction demand requires more than this amount, the Company expects energy consultants to be able to handle an increased project workload at any time between EDA application, modeling and verification and within a timely manner.

As needed, the Company will assign an energy consultant to a project given the following steps:

1. Company will review program applications for timing, square footage, and agreement to terms as well as whether or not the customer is currently working with an EDA consultant.

2. Customer choice of consultants will be given first preference.

3. An energy consultant will then be assigned based on appropriate workload by the EDA Program Manager.
   
   a. Company acknowledges that they will determine appropriate workload by how many introductory meetings can be started within a two week period, how far along modeling is on other projects, and responsiveness of energy consultant.

   b. If reporting and processes are not being followed and/or the energy consultant is not responsive to the Company or the customer work will be re-assigned to another energy consultant. Further, the Company has all rights to the model and disseminating information from this model as needed.

Energy consultants will further evaluate individual projects for actual merit and make recommendations to Company as to the potential energy savings and if the basic or enhanced track should be pursued.

Company must also approve any subcontracting arrangements used in the execution of this Scope of Work to meet any future need.

2.2 Energy Modeling

Energy consultants will at a minimum:

- Facilitate the energy reviews of Energy Design Assistance projects
- Hold a minimum of three customer/design team meetings: Introductory Meeting, Preliminary Energy Analysis Meeting and Final Energy Analysis Meeting. A meeting at Construction Documentation stage is suggested. These meetings shall have representatives from the customer, design team and Company. It is mandatory to have the Company representative (Account Manager or designee) at the Introductory Meeting.
- Complete an energy model of the building
• Verify building design alternative completion
• Keep Company intimately involved in the entire design process
• Meet with Company monthly to discuss project status
• Consultant will follow the Energy Modeling Protocol and Manual as provided by Company for energy modeling and program requirements
• Consultant will use Company’s management systems to track all projects (EDAPT).

Baseline - incentives are based on energy savings over a particular baseline/code level. Incentive Baseline is based on ASHRAE 90.1. For tracking purposes, all projects must be compared to the default baseline. Certification requirements may call for a different baseline which will be included as a separate analysis in EDA.

Company currently requires the use ASHRAE 90.1 and Appendix G (with addenda) for modeling comparison. Any deviation between this Appendix and modeling protocol should be discussed with Company. Further, any deviation required by Company will be communicated to the energy consultants.

2.3 Verification
Company has verification rules that must be met per the following DSM program policy:

The Energy Design Assistance program provides design assistance in support of integrated design process by providing computer modeling of the planned design, funding to help offset the cost of design time associated with the increased energy analysis, financial incentives to improve the cost effectiveness of a package of energy-efficient measures, and field verification to ensure that the measures are installed per the design intent. The customer rebate is not paid until the savings are verified.

Measurement & Verification Consultants (M&V Consultant), hired by the Company, will be used to review construction documents and conduct a site visit to verify that specified measures are installed. Equipment and systems are monitored for a two-four week timeframe, as appropriate, to evaluate performance variables against modeling assumptions.

In order to meet the needs of Company’s regulatory requirements, further tracking and results may be required of energy consultants for projects being verified for the Energy Design Assistance program.

2.4 Administrative and Reporting Work
In addition to the project specific deliverables outlined in Section 3.0, other required obligations to the Company are detailed below.

• Administrative Activities: Energy consultants are required to use the Company’s tracking system for projects, as well as have their own active database or software system to track project deliverables. A monthly report and meeting will be held with Company to go over project prospects and project status. Monthly reports, at minimum, must include:
  • Updates/changes to project timeline
  • Project status
• Project prospects (those not ready to complete applications)
• Meetings held with design teams

• Project Trending
  • Project starts
  • Project square footage
  • Baseline kW, kWh, Dth
  • Baseline kW/square foot

• Year-End Reporting
  • TBD – Year-end requirement

• Segment Work: Company has other program engineering requirements such as process efficiency and data centers. This requirement will be to work with our energy efficient engineer to apply Company approved engineering best practices to these applications, when applicable.

• Special Projects: The Company will consider a stipend rebate for open consultants to conduct special projects which provide value to all EDA Consultants and the EDA Program. All special projects will be determined by Company and may include writing new energy efficiency measure in/around OpenStudio modeling platform, analysis, case studies, and code reviews.

• Marketing: Program marketing will be directed by Company. Energy consultant will follow Xcel Energy marketing guidelines on all reports, relevant documents and customer correspondence. Consultants may be asked to contribute to program marketing efforts, including contact with design and construction professionals and organizations. Expenses associated with such requested and approved efforts are not reimbursable.
3.0 Deliverables and Tasks

Applications for the Energy Design Assistance program come directly through Company. These applications are reviewed by Company and approved based on size, design schedule and willingness to participate and reach energy savings goals.

Typically the EDA program is an 8-12 week process from the initiation of the project to the completion of the modeling activities. Measurement and verification including construction document review and on-site verification can typically take anywhere from 2 to 3 years after project initiation.

To manage the EDA program process the Company has developed an online portal called EDAPT. EDAPT is to be used by the Company program manager, energy consultant, design team, building developer and/or owner as the primary system to track projects. EDAPT will also serve as the repository for required project related documentation. EDAPT interacts with OpenStudio to populate modeling results into Company approved reporting templates.

The following table describes the deliverables to be provided by the energy consultant as requested by the Company.

Table 1 – Basic, Express & Enhanced Track Deliverables*

<table>
<thead>
<tr>
<th>Task</th>
<th>Deliverable</th>
<th>Timeline</th>
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</thead>
<tbody>
<tr>
<td>Introductory Meeting</td>
<td>Schedule meeting Intro Meeting (A representative from the Company must be in attendance.)</td>
<td>2 weeks from application acceptance by Company</td>
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<tr>
<td></td>
<td>Work with team to decide whether the basic or enhanced track is appropriate</td>
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<tr>
<td></td>
<td>Prepare Introductory Report using EDAPT</td>
<td></td>
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<tr>
<td></td>
<td>Conduct Introductory Meeting</td>
<td></td>
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<tr>
<td></td>
<td>Complete Intro Report using EDAPT</td>
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<tr>
<td>Enhanced Analysis (if Enhanced track approved for project)</td>
<td>Where appropriate:</td>
<td>4-5 weeks after introductory meeting, latest</td>
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<td></td>
<td>Goal setting meeting</td>
<td></td>
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<td></td>
<td>Massing, daylighting, lighting, HVAC systems analysis (see Appendix A for details)</td>
<td></td>
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<tr>
<td></td>
<td>Certification analysis</td>
<td></td>
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<tr>
<td></td>
<td>Send analyses report(s) to Company</td>
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<tr>
<td>Preliminary Energy Analysis</td>
<td>Conduct preliminary energy analysis (PEA) analysis in Energy Plus/OpenStudio</td>
<td>4-5 weeks after introductory meeting (later if</td>
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<tr>
<td></td>
<td>Prepare PEA report using EDAPT</td>
<td></td>
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<tr>
<td>(Express track provides qualitative report)</td>
<td>enhanced track)</td>
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<td></td>
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<tr>
<td>Schedule and conduct PEA meeting</td>
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<td></td>
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<tr>
<td>Complete PEA Report using EDAPT</td>
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</tbody>
</table>

**Final Energy Analysis**

| Conduct final energy analysis (FEA) with identified design alternatives in Energy Plus/OpenStudio | 6-8 weeks after introductory meeting (later if enhanced track) |
| Prepare FEA report using EDAPT | |
| Conduct FEA meeting and select final design alternative decision by customer. | |
| Complete FEA report using EDAPT | |
| Prepare design alternative list for CD review | |

**Construction Document Review**

| Review CDs and check for all measures provided in selected design alternative (*verification consultant conducts this step*) | Completion before construction is finalized. |
| Update model with results from the M&V consultant CD review | |
| Provide proof of certification registration (Enhanced track only) | |
| Complete CD report using EDAPT | |
| Prepare design alternative list for final verification site visit; get approval from Company; hand off to Verification Consultant | |

**Final Verification**

| Conduct site verification (*M&V consultant conducts this step*) | At 80% occupancy rate or more |
| Complete as-built model with verification results | |
| Complete verification report using EDAPT; get approval from Company. Send approved report to customer | |

*Exceptions to this process can only be made by approval from Company.*

**Task One: Introductory Meeting**

Task One has the following objectives:
• Determine if the project should follow the Basic, Express or Enhanced track. These can be done in the introductory meeting or prior to this meeting taking place.
  o Customer should be looking for high energy savings potential
  o Design team should have sufficient time allocated in order to provide these services
  o If Enhanced, Customer should provide certification proof (i.e. LEED registration).
• Schedule meeting with energy consultant, customer, design team and the Company account manager assigned to the project. It is a requirement to have the Company account manager (or designee) at attendance for the intro meeting. Note: The energy consultant should be the main driver of this meeting and should not assign the task to a design team.
• Prepare Introductory Report using EDAPT. Energy savings estimates should be provided by the EC at this time.
• Develop a schedule for completing the EDA tasks and projects including dates for both the PEA and FEA.
  o Educate owner and design team on the EDA program including incentives, program steps and schedules.
  o Review potential energy savings to begin preliminary analysis.
  o Introductory meetings usually take approximately one hour.
• Project and Building Characteristics
  o Collect and record building characteristics information, desired features, EDA track chosen (basic or enhanced) and energy savings goals.
  o Give design team incremental capital cost form and discuss method of collecting costs
  o Estimate energy kW, kWh and Dth savings and incentive for project
  o Identify Enhanced track early analysis and/or certification choices

Additional Enhanced Track Tasks
The Enhanced track offering adds additional tasks between the introductory meeting and preliminary analysis. Each project will be unique, but should follow these overlying objectives:

• Goal Setting
  o Work with customer and design team to create a goal of where they would like the project to be at. Minimally, the project must reach 30% energy demand savings and 15% gas savings to qualify for EDA enhanced track. Goal setting and introductory meeting should be combined into one meeting whenever possible.
• Certification, Massing, Day-lighting, HVAC, Lighting analysis
  o Conduct analysis
  o Review with design team
  o Complete report for team and Company
• Note: If any of these above enhanced track tasks are being provided by another provider, we will not offer the services through an EDA consultant.

Task Two: Preliminary Energy Analysis
Task Two has the following objectives:
• Energy Analysis
  o Determine energy savings of design measures identified in Task One, through building energy simulation
Identify and analyze additional measures that may become apparent as the result of building energy simulation
Determine measure costs (incremental construction costs relative to the initial concept design)

- Prepare PEA report using EDAPT
- Schedule and conduct preliminary analysis meeting
  - Educate customers and design teams on energy use characteristics by building type, energy standard requirements and potential design measures
  - Present results of energy analyses to customer and design team
  - PEA meetings can be the longest meetings in the process taking approximately 2-3 hours

The Preliminary Energy Analysis Report shall include detailed information on the following:

- Company EDA baseline
- Approved certification baseline (if applicable)
- Cost Baseline (Cost Base)
- Modeling methods
- Wall mass types and R values
- Glazing U factors and SHGC
- Window-to-wall ratio
- Roof R values
- Space type, floor area, and other design parameters
- Space internal gains
- Lighting/equipment power densities
- Mechanical (HVAC) system characteristics
- Service hot water system characteristics
- Supply and outdoor ventilation air capacities
- Supply fan total static pressure
- Utility schedules
- Weather (meteorological) data
- Full load equivalent hours of operation for lighting, equipment and occupants
- Energy conservation measure (ECM) descriptions
- Energy use summary (for all baselines)
- Energy cost summary (for all baselines)
- Certification points (or other metrics) estimates (if applicable)
- Energy analysis summary
- Wall areas by orientation
- Glazing area by orientation
- Hourly space schedules
- EUI
- Carbon dioxide reduction

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1 Actual costs should be used whenever available. These should come directly from the design team. For costs that are not received from the team, general costing may be used, but MUST be noted within the reports.
Task Three: Final Energy Analysis

Task Three has the following objectives:

- Simulate Identified Design alternatives (groupings of measures)
  - Determine energy savings of each design alternative. Review initial analysis and use customer and design team input.
  - Design alternatives should be completed according to the following:
    - Baseline Building: The minimum compliant building with the absence of energy modeling.
    - Design alternative 1: Includes the measures that will likely be incorporated into the building for multiple reasons, including aesthetic value, operational benefits, occupant comfort, owner preference and other non-energy specific criteria. This would also be known as the proposed initial design.
    - Design alternative 2: Adds to or modifies measures from Design alternative 1 to include additional energy saving features that could potentially be acceptable to the owner and occupants from an operational perspective, with the understanding that additional background or training may be required to confirm acceptance. From a cost standpoint, some of these items may have longer paybacks and/or require additional funding.
    - Design alternative 3: Include all measures that optimize energy savings, to serve as an illustration of maximum potential given the list of measures considered, regardless of payback.
  - Savings requirements. All design alternatives (above baseline) should be at or above the EDA program savings requirements.
- Review Incentive potential
  - Determines probable energy incentive from Company. (This incentive is used by Company for forecasting purposes.)
- Prepare FEA report using EDAPT
- Conduct FEA meeting and request customer select design alternative intent
  - Prepare list of selected final design alternative measures for CD review
  - Verify and note if any one measure is over 1 GWh or 20,000 MCF
- Send final FEA report to Company for approval, then to design team (once approved)

Task Four: Construction Document (CD) Review; Payments

Task four has the following objectives:

- M&V Consultant reviews CDs and checks for all measures provided in selected design alternative list (M&V consultant)
- Update model to reflect CD review results (energy consultant)
- Prepare CD report using EDAPT
  - Should be first sent to design team for review and then sent to entire team

2 Specific reporting requirements for this analysis will be provided.
• Send final CD report to Company for approval, then to design team
• Prepare list of selected design alternative measures for M&V review
  o Verify and note if any one measure is over 1 GWh or 20,000 MCF
  o List should include measures requiring data logging and additional needs as needed
• **Send list of verified design alternative measures from CD report to M&V consultant**
• **Send proof of certification registration (Enhanced track only)**
• Once tasks are complete, Company sends Pay for Performance check (50% of customer incentive estimate) to Energy Consultant
• Design Team submits request for incentive form to Xcel Energy

**Task Five: Final Measurement & Verification; Payments**

Task five has the following objectives:

• Conduct site visit verification using measure list from final CD report (M&V consultant)
  o Look for additional energy efficiency measures not on list
• Update as-built model to reflect M&V review results (energy consultant)
• Prepare M&V report using EDAPT; send report to Company for approval
  o Send first to design team for review, then sent to entire team

**Note:** The measurement and verification (M&V) portion of EDA does not include commissioning of the building.

• Company sends rebate check to customer
• Company sends final P4P check to Energy Consultant
4. Company Roles and Responsibilities
The Energy Design Assistance (EDA) program is administered and managed by Company. The EDA team includes the following:

- **Program Manager**: the program manager is the lead on this program
  - Jennifer Elling, Product Portfolio Manager
  - Phone: 303-294-2396
  - Email: Jennifer.A.Elling@xcelenergy.com

- **Energy Efficiency Engineer**: the energy efficient engineer is in charge of reviewing modeling protocols and should be notified of questions and concerns regarding any technical aspect of the program. He also reviews the Preliminary Analysis and Measurement & Verification plan.
  - Joe Krekeler, Energy Efficient Engineer
  - Phone: 612-330-5602
  - Email: Joseph.F.Krekeler@xcelenergy.com

- **Marketing Assistant**: the marketing assistant is the main contact for invoicing and project tracking. This individual should be copied on all correspondences between the Company customer and our Consultant
  - Parker Cohn, Marketing Assistant
  - Phone: 303-294-2694
  - Email: Parker.W.Cohn@xcelenergy.com

- **Vendor Relations Manager**: The vendor relation’s manager is the main contact between Company and the trade. This individual will help lead Company’s efforts in marketing the program to design teams.
  - Derek Shockley, Vendor Relations Manager
  - Phone: 303-294-2082
  - Email: John.D.Shockley@xcelenergy.com
Appendix A

Early Analyses EDA Enhanced Track

Early modeling can include several different services; the intent is to address key design issues early in design prior to optimizing the entire building. It is up to the EDA consultant to present options to Xcel Energy for approval in the EDA Enhanced track. Note: if the customer has/will obtain any of these early analyses services from elsewhere, the EDA consultant will not be reimbursed for these early analyses from Xcel Energy.

All analyses’ detailed reports will be sent to Xcel Energy within two weeks of completion.

Objectives

1. Massing Analysis
2. Daylighting Analysis
3. HVAC Analysis
4. Lighting Analysis

Objective 1 - Building Massing Analysis

Create and compare alternative massing and orientations to maximize energy efficiency potential. The design team must be willing to consider a minimum of four massing design alternatives in an effort to determine which shape and/or orientation would result in the most energy savings. All reports must use the EDA baseline and show detailed proposed costs and savings for each measure in each alternative.

A meeting will be held with Energy Consultant (EC)/Design Team where a minimum of four massing designs systems are defined, necessary design details are identified and schedule is defined.

A minimum of four building alternatives will be analyzed by the EC in order to show which shape and or orientation would result in the most energy efficiency. After the analysis is complete, a meeting will be held to discuss the massing results.

Follow-up meetings are addressed as necessary.

Objective 2 - Daylighting Analysis

Create and compare a minimum of four alternative daylighting strategies, including window sizes and placement for daylighting harvesting and sun shading options. All reports must use the EDA baseline and show detailed proposed costs and savings for each measure in each alternative.

A meeting is held where a minimum of four daylighting strategies are defined, daylighting elements are discussed, schedule is defined, and information about the design and “key spaces” for daylighting are identified.
The EC analyzes optimizing the size and placement of windows, shading devices, interior design elements etc. for beneficial daylighting and passive solar control. After the analysis is complete, a meeting will be held to discuss the daylighting results. Often another meeting is scheduled to detail changes from this results meeting.

**Objective 3 - HVAC Analysis**

Create and compare a minimum of four alternative HVAC system types and zoning options to maximize energy efficiency. All reports must use the EDA baseline and show detailed proposed costs and savings for each measure in each alternative.

A meeting is held where a minimum of three HVAC strategies and design systems are defined, necessary design details are identified and schedule is defined.

The preferred HVAC strategy, as determined by the design team, will be further evaluated by the EC. HVAC options will include mechanical zoning, system type, plant equipment, and applicable controls. After the analysis is complete, a meeting will be held to discuss the HVAC results.

Follow-up meetings are addressed as necessary.

**Objective 4 – Lighting System Analysis**

Create and compare a minimum of four lighting analysis, as bulleted below. The Enhanced lighting analysis provides specific solutions to the team that can increase lighting efficiency beyond what would be normally analyzed in the scope of EDA. While lighting efficiency goals should still be set and discussed early in design, lighting is unique in that many additional efficiency opportunities are not revealed until Design Development, or sometimes even later. As such, the EC seeking to perform an Enhanced Lighting Analysis must carefully review the lighting and controls layout as it develops, from SDs all the way through CDs and often into the submittal phase. All lighting analysis should be accompanied by incremental cost information. All reports must use the EDA baseline and show detailed proposed costs and savings for each measure in each alternative.

Enhanced lighting analysis includes the following:

- **Photometric analysis**: For spaces that require task light and specific light levels, use a lighting calculation software to provide both vertical and horizontal light levels (foot candles or lux) as necessary to target spaces that may be over-lit. An example of this analysis may include a photometric analysis of a DD set’s parking garage lighting design, comparing to IESNA recommended light levels, and offering an alternative fixture, lamping, ballast, or layout that provides more appropriate light levels and energy savings.

- **Light fixture package analysis**: Offer specific fixture, lamping, or ballast alternates that provide a more energy efficient design while still meeting the design intent. This should occur as the lighting designer is developing a fixture package. An example of this may include researching and suggesting an LED fixture alternative in place of a CFL fixture, and running photometric
calculations to substantiate its equivalency. Another example might be researching and analyzing different lamp-ballast combination alternatives.

- **Lighting control package analysis:** Review control strategies, device specifications, daylighting zoning, and lighting control intent narrative. Offer specific adjustments to the control package and/or zoning to optimize energy efficiency. An example of this type of analysis may include recommendations on optimal lighting zoning and control type based on the results of the daylighting analysis.

- **Architectural lighting analysis:** Identify simple architectural changes that would allow for increased lighting efficiency. Architectural changes such as a parking garage painted white or lower partitions in an open office may allow for better lighting efficiency. This analysis should be accompanied by specific lighting layout or fixture recommended changes that will allow the team to achieve these savings.

A meeting is held where a review of architectural elements and/or lighting systems are discussed and schedule is defined.