Data Centers

New Buildings I Multi-Incentive Application I 520DC

OVERVIEW AND ELIGIBILITY

A signed copy of the **Project Enrollment Application** (**Form 510A**) must accompany or precede this form, and only those projects approved for enrollment by the New Buildings program (Program) can apply for incentive funding. Any measure which, either separately or as part of a project, has or will receive an incentive from any other Energy Trust offering is ineligible for the incentives listed in this form.

This **Form 520DC** is structured in four sections so that, as the project progresses, Project Owner can complete the relevant **Incentive Application** and submit this form along with all required accompanying documentation to the Program. This **Form 520DC** can be completed at one time, or submitted up to four separate times, once for each of the four **Incentive Applications** included. Each **Incentive Application** included in this form will be reviewed independently by the Program to determine whether that specific **Incentive Application** qualifies for an incentive.

PROJECT INFORMATION

PROJECT OWNER NAME	COMPANY
BUILDING/PROJECT NAME	PROJECT ID (IF KNOWN)
EXPECTED CONSTRUCTION COMPLETION DATE	

Click the boxes below to be linked to the corresponding Incentive Application:

Early Design Assistance | **Technical Assistance** | **Construction Documents Meeting** | **Installation: Modeled Savings**

SECTION ONE: EARLY DESIGN ASSISTANCE INCENTIVE APPLICATION

Early design assistance incentives are available to help offset some of the costs of holding a collaborative project team meeting to discuss energy-related topics with your entire project team. To apply, Project Owner must first successfully enroll the project as described in the **Project Enrollment Application**. To qualify, project enrollment must occur during the schematic design phase or earlier and Project Owner must commit to exceeding baseline energy use projections for the project by a minimum of 2.5%.

Project Team Meeting Details

DATE	TIME	LOCATION

Facilitator (the team meeting will be facilitated by the following contact)

FACILITATOR NAME	TITLE	PHONE	EMAIL
FIRM NAME	ADDRESS		CITY, STATE, ZIP

Early Design Assistance: Steps to Participate

1. Successfully enroll your project as described in the **Project Enrollment Application**.
2. Complete the Project Information and **Early Design Assistance Incentive Application** sections of this **Form 520DC** and submit to the Program, along with:
    a. Project team meeting agenda
    b. List of invited attendees (include each person's role and contact information)
3. Following a review of the submitted Early Design Assistance Incentive Application materials, Energy Trust will notify Project Owner via e-mail of its decision. If approved for an early design assistance incentive reservation, you will receive a written notice. The incentive reservation notice will inform Project Owner of the estimated early design assistance incentive amount and associated incentive reservation period (i.e. the deadline to complete the project team meeting and submit all required completion documentation).
4. Schedule and conduct your project team meeting according to the following requirements:

Attendees at Early Design Meeting

Owner, Electrical Engineer, Mechanical Engineer, Energy Analyst, Meeting Facilitator, IT Design Group Member	**Required**
Energy Trust Program Representative, General Contractor, Commissioning Agent, Building Operator, Architect	**Optional (Recommended)**

Required Discussion Topics:

Preliminary energy end-use breakdown (IT, HVAC, Electrical Distribution/UPS Losses, Lighting, Other)

Redundancy requirements

IT Load

- Equipment efficiency (servers, power supplies)
- Storage optimization
- Monitoring and controls
- Power management

Power Distribution

- High efficiency equipment (UPS, PDU, transformers)
- Type of UPS (standby, line interactive, double conversion)
- UPS efficiency as a function of loading / load management
    - Multiple module UPS configurations
    - Intelligent paralleling
    - Offline operation of redundant units

  - Eco-mode operation
- Fly wheel versus battery backup
- High voltage distribution

Cooling Systems
- Direct Expansion (DX) Cooling
  - Efficient equipment
  - Increased supply air temperatures
  - EC motors
- Optimized chilled water plant
  - Efficient equipment
  - Increased chilled water supply temperature
  - Condenser water temperature reset
- Low pressure drop air supply
- Integrated economizer operation
  - Air-side economizers
  - Water-side economizers
- Chilled door systems

Airflow management
- ASHRAE thermal guidelines
- Hot/cold aisle containment
- Optimizing supply and return air design

Other
- High efficiency lighting design
- Lighting controls
- Other miscellaneous load management
- Domestic hot water

Optional (Recommended) Discussion Topics:

Results of studies identifying climate conditions and site potential

Other analyses, such as CFD modeling

Operation and maintenance strategies

Strategy for lifecycle cost analysis of energy measures, including preliminary list of measures to analyze

Monitoring of building performance

On-site renewable consideration

5. Prepare a written report or minutes documenting your project team meeting discussion and results.
6. To request payment, submit the following to the Program, before the established early design assistance incentive reservation deadline, for verification:
   a. Complete, signed **Payment Request (Form 540PR)**
   b. Meeting minutes or report from the project team meeting demonstrating that it met the requirements identified above
   c. Project Owner's current W-9 (if not previously submitted)

Early Design Assistance: Incentive Calculation

The Program will calculate the amount of early design assistance incentive funding it will reserve for a project using criteria that examines the proposed project's anticipated design load and energy savings potential, as well as the scope and size of Project Owner's early design meeting. For qualifying projects, the early design assistance incentive amount available per project is up to $5,000.

Early Design Assistance: Submittal

Project Owner understands and agrees that the terms and conditions contained in this **Early Design Assistance Incentive Application** are in addition to, and governed by, its **Project Enrollment Application** agreement with Energy Trust for the identified project. Project Owner further agrees that all of the information in the submitted **Project Enrollment Application** agreement remains true and correct as of the date of this submission.

Submitted By: (Must be an authorized representative of Project Owner)

Name	**Title**	**Date**
Firm Name	**Phone**	**Email**

SECTION TWO: TECHNICAL ASSISTANCE INCENTIVE APPLICATION

Technical assistance incentives are avalaible to help with energy modeling or other technical activities undertaken after a project has completed the early design phase and before system selection. Eligible technical assistance studies may include whole-building modeling, CFD analysis, measure-specific or system-specific analysis/modeling, final savings analysis, or additional studies that support energy-related decisions. To qualify for incentives, the scope of the additional design work for each proposed study must be acceptable to the Program.

Technical Assistance: Steps to Participate

1. Successfully enroll your project as described in the **Project Enrollment Application**.
2. Complete the Project Information and **Technical Assistance Incentive Application** sections of this **Form 520DC** and submit to the Program, along with the following documentation for one or more of the proposed studies. If multiple studies are proposed in connection with this Incentive Application, each one will be individually reviewed for incentive eligibility purposes. For each proposed study, submit:
   a. Description of Analysis
      - Provide the name and contact information for the firm that will perform the analysis, a description of the analysis work that will be performed and the analytical approach that will be used (i.e. spreadsheet calculations, manufacturer calculation tools, simulation model).
      - An estimate of the labor hours required for the needed task areas (i.e. baseline model development, proposed model development, spreadsheet calculations, analysis report procurement, etc.)
      - The total not-to-exceed cost estimate to perform the technical assistance plan identified herein
      - The estimated start and end dates for the study as well as all deliverable and milestone dates
   b. If the proposed study will address building energy modeling, also include:
      - Description of data center baseline and proposed systems (projects may use the **Data Center Energy Analysis Plan Template)**; Projects should work with the program to determine the appropriate baseline prior to starting the energy analysis. See also **Appendix C** of the **Technical Guidelines** for additional information.
3. The Program will review each study proposal submitted in connection with this Incentive Application and notify Project Owner via e-mail of its decision. If a proposed study is approved for an incentive reservation, you will receive a written notice. The Energy Trust incentive reservation notice will inform Project Owner of the estimated incentive reservation period for that study (i.e. the deadline to complete the study and submit all required completion documentation).
4. Complete the study, including analysis or model, as proposed.
5. To request payment for a study in connection with this Incentive Application, submit the following to the Program, before the established incentive reservation deadline for that study, for verification:
   - Complete, signed **Payment Request (Form 540PR)**
   - Narrative describing the analysis; for models, projects are encouraged to use the **Data Center Energy Analysis Report Template**
   - **Savings Summary Worksheet**
   - Model or other analysis files along with supporting equipment documentation relevant to the energy efficiency measures, including product data sheets, mechanical drawings, equipment schedules, lighting fixture plans and schedules, floor plans, and architectural drawings. Refer to the **Technical Guidelines** for further information regarding requirements.
   - Final invoices and cost documentation for Project Owner's implemented technical assistance activities for the project, along with proof of payment
   - Project Owner's current W-9 (if not previously submitted)

RETURN FORM TO
Business Energy Solutions – New Buildings

100 SW Main Street, #1500, Portland, OR 97204
1.877.467.0930 ***telephone*** 503.961.7642 ***fax***
newbuildings@energytrust.org ***email***

For Program Use Only

OM:
Project ID:
PT ID:

Technical Assistance: Incentive Calculation

Technical assistance incentives will be calculated per study as 100% of Project Owner's actual eligible study costs, as approved by the Program, up to a maximum amount. The actual incentive amount payable for a study will be determined by the Program following its review of Project's Owner's submitted final invoices and cost documentation. The maximum amount of technical assistance incentives payable for all technical assistance studies combined will not exceed $50,000.

Technical Assistance: Submittal

Project Owner understands and agrees that the terms and conditions contained in this **Technical Assistance Incentive Application** are in addition to, and governed by, its **Project Enrollment Application** agreement with Energy Trust for the identified project. Project Owner further agrees that all of the information in the submitted **Project Enrollment Application** agreement remains true and correct as of the date of this submission.

Submitted By: (Must be an authorized representative of Project Owner)

Name	Title	Date

Firm Name	Phone	Email

SECTION THREE: CONSTRUCTION DOCUMENTS MEETING INCENTIVE APPLICATION

The construction documents meeting incentive is available to help offset some of the costs of meeting with the Program at the construction documents phase of the project to discuss current energy efficiency measures and additional opportunities for enhanced efficiency. To apply, Project Owner must first successfully enroll the project as described in the **Project Enrollment Application**.

Construction Documents Meeting Details

DATE	TIME	LOCATION

Facilitator (the meeting will be facilitated by the following contact)

FACILITATOR NAME	TITLE	PHONE	EMAIL
FIRM NAME	ADDRESS		CITY, STATE, ZIP

Construction Documents Meeting: Steps to Participate

1. Successfully enroll your project as described in the **Project Enrollment Application**.
2. At least two weeks prior to the meeting, complete the Project Information and **Construction Documents Meeting Incentive Application** sections of this **Form 520DC** and submit to the Program, along with:
   a. Project's construction documents
   b. Project team meeting agenda
   c. List of invited attendees (include each person's role and contact information). Required attendees are owner, architect, engineering / energy analyst, and an Energy Trust program representative.
3. Following our review of your submitted construction documents meeting materials, Energy Trust will notify Project Owner via e-mail of its decision. If approved for a construction documents meeting incentive reservation, you will receive a written notice. The incentive reservation notice will inform Project Owner of the estimated construction documents meeting incentive amount and associated incentive reservation period (i.e. the deadline to complete the meeting and submit all required completion documentation).
4. Schedule and conduct your construction documents meeting.
5. To request payment, submit the following to the Program, before the established construction documents meeting incentive reservation deadline, for verification:
   a. Complete, signed **Payment Request (Form 540PR)**
   b. Notes from the meeting, including action items for changes
   c. Project Owner's current W-9 (if not previously submitted)

Construction Documents Meeting: Incentive Calculation

The construction documents meeting incentive amount available per project is $2,500.

Construction Documents Meeting: Submittal

Project Owner understands and agrees that the terms and conditions contained in this **Construction Documents Meeting Incentive Application** are in addition to, and governed by, its **Project Enrollment Application** agreement with Energy Trust for the identified project. Project Owner further agrees that all of the information in the submitted **Project Enrollment Application** agreement remains true and correct as of the date of this submission.

Submitted By: (Must be an authorized representative of Project Owner)

Name	**Title**	**Date**

Firm Name	**Phone**	**Email**

SECTION FOUR: MODELED SAVINGS INCENTIVE APPLICATION

Modeled savings incentives are available for energy efficiency savings resulting from the installation of qualifying energy measures identified by the Program. To be eligible for incentives, the equipment and measures must exceed the applicable or 2014 Oregon Energy Efficiency Specialty Code and other baseline requirements set by the Program, must have a minimum of at least a one-year simple payback, and must pass the Program's cost-effectiveness test. Please refer to the **Technical Guidelines**, available on the Program website, for further information regarding our modeling requirements.

Energy Analyst (*if applicable*)

ANALYST NAME	TITLE	PHONE	EMAIL
FIRM NAME	ADDRESS	CITY, STATE, ZIP	

Modeled Savings: Steps to Participate

1. Successfully enroll your project as described in the **Project Enrollment Application**.
2. Complete the Project Information and **Modeled Savings Incentive Application** sections of this **Form 520DC** and submit to the Program, along with the following Modeled Savings Incentive Application materials (NOTE: If these accompanying materials were previously submitted while applying for other incentives available on this **Form 520DC**, it is not necessary to re-submit them at this stage):
   - Narrative describing the energy efficiency measures (projects are encouraged to use the **Data Center Energy Analysis Report Template**
   - Whole building energy modeling files or spreadsheet calculations
   - **Savings Summary Worksheet**
   - Supporting equipment documentation relevant to the energy efficiency measures, including product data sheets, mechanical and/or electrical drawings, equipment schedules, lighting fixture plans and schedules, floor plans, and architectural drawings. Refer to the **Technical Guidelines** for further information regarding requirements.
3. Following our review of your submitted Modeled Savings Incentive Application materials, Energy Trust will notify Project Owner via e-mail if qualifying measures are identified. If approved for a Modeled Savings incentive reservation, you will receive a written notice. The incentive reservation notice will inform Project Owner of the estimated Modeled Savings incentive amount and associated incentive reservation period (i.e. the deadline to install the measures and submit all required completion documentation).
4. Install the energy efficiency measures.
5. To request payment, submit the following to the Program, before the established incentive reservation deadline, for verification:
   - Complete and signed **Payment Request (Form 540PR)**
   - Product data sheets (if not previously submitted)
   - Payment documentation, such as vendor invoices showing make, model, and quantity purchased.
   - Project Owner's current W-9 (if not previously submitted)
6. A site verification visit may be required by the Program prior to final payment.

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OM:
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Modeled Savings: Incentive Calculation

Incentives for modeled savings are calculated at a rate of $0.20/kWh based on the estimated annual energy savings of the project's qualifying measures up to a maximum amount. Modeled savings incentives are categorized by the Program as installation incentives and the maximum amount of installation incentives available for all qualifying measures combined will not exceed $499,999 per project.

Modeled Savings: Submittal

Project Owner understands and agrees that the terms and conditions contained in this **Modeled Savings Incentive Application** are in addition to, and governed by, its **Project Enrollment Application** agreement with Energy Trust for the identified project. Project Owner further agrees that all of the information in the submitted **Project Enrollment Application** agreement remains true and correct as of the date of this submission.

Submitted By: (Must be an authorized representative of Project Owner)

Name	Title	Date
Firm Name	**Phone**	**Email**

FOR MORE INFORMATION

Please visit energytrust.org/business or call 1.877.467.0930

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