



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

June 24, 2024



48

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Environmental Services (NHDES) to enter into a cooperative project agreement with the University of New Hampshire, Durham NH (VC# 315187-B083) totaling \$40,037 for partial funding of six (6) electric plug-in power pedestals for use by ocean-going diesel vessels to reduce idling while in port, effective upon Governor and Council approval, through June 30, 2025. 100% NH Volkswagen Environmental Mitigation Trust Funds.

EXPLANATION

The New Hampshire Volkswagen Beneficiary Mitigation Plan provides that 50 percent of New Hampshire's allocation of the national Volkswagen settlement funds will be used for the replacement of state and municipal vehicles and equipment to reduce overall diesel emissions and specifically to alleviate excess nitrogen oxide emissions caused by Volkswagen violations. Of that allocation, approximately 60 percent will be utilized to replace eligible vehicles owned by municipal governments (including public colleges and universities). Through a Granite State Clean Fleets Request For Proposals (RFP), conducted from June 9, 2023 through October 13, 2023, NHDES received 32 qualifying proposals and is awarding grants to 16 applicants. Please see Attachment A for ranking and scores.

Under this Agreement, the University of New Hampshire will reduce harmful emissions through the installation of six (6) electric plug-in power pedestals at the School of Marine Science & Ocean Engineering (SMSOE) Judd Gregg Marine Research Pier in New Castle, NH. The upgrade and replacement of the marine shore power pedestals will provide power to ocean-going diesel vessels while they are in port, supporting the operations of research vessels and ensuring they have access to reliable and compliant electrical connections, while significantly reducing concentrated, localized diesel emissions, caused by vessel idling.

The existing pedestals are almost fifteen years old and do not comply with the current IEC/PAS/80005-3:2014 Low Voltage Shore Connection (LVSC) power systems standards or the National Electrical Code (NEC), which require the inclusion of ground fault circuit interrupters (GFCI) and ground fault equipment protectors (GFEP) for both vessels and personnel on the pier. Only two of the current plug-in power pedestals have access to adequate power and supply the necessary 50-amp 125/250-volt power (the typical power requirement for modern vessels). The other four pedestals are not useable in their current condition. All pedestals are experiencing significant metal corrosion, flaking paint, lack of weatherproofing, worn and missing cover gaskets on the power cable receptacles, and inoperable dock lighting. These items can become safety concerns if not promptly addressed. The University System of New Hampshire (USNH) is committed to operating its transportation fleet primarily on alternative, low- or no-emissions fuels and the SMSOE has set a goal to transition 25% of its small boat fleet to fully electric

www.des.nh.gov

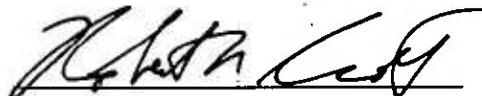
29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • (603) 271-2867 • TDD Access: Relay NH 1-800-735-2964

propulsion systems within the next five years. This marine shore power project is in alignment with these goals and the new pedestals will adhere to the latest NEC and LVSC power system standards, ensuring safety, reliability, and compatibility with modern vessels and equipment. Upgrade and replacement of the marine shore power pedestals is expected to result in improved power supply, enhanced safety and compliance, support of research activities and continuity, cost efficiency, improved infrastructure, and a positive environmental impact on this unique environmental research area. The vessels which dock at the Research Pier are from private, public, and federal organizations, as well as numerous partner vessels. The benefits expected for vessels using the plug-in power pedestals are reduced fuel consumption, maintenance and operating costs, and access to reliable power connections. The USNH has partnered with a local and reliable electrical vendor, Yates Electric Service Inc., to complete this project.

Pursuant to the NH Volkswagen Environmental Mitigation Trust (the VW Trust) and the Granite State Clean Fleets RFP, recipients must provide a 10% match for eligible marine shore power projects. NHDES will provide UNH funding through a cooperative project agreement of \$40,037 or 90% of eligible project costs, whichever is less, for the replacement and upgrade of six (6) electric plug-in power pedestals for use by ocean-going diesel vessels. All payments will be transferred directly from the VW Trust to UNH upon NHDES approval of invoices.

This Agreement has been approved as to form, substance, and execution by the Office of the Attorney General. In the event that the VW Trust funds become no longer available, General funds will not be requested to support this program.

We respectfully request your approval.



Robert R. Scott
Commissioner

COOPERATIVE PROJECT AGREEMENT

between the
STATE OF NEW HAMPSHIRE, Department of Environmental Services
and the
University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, Department of Environmental Services, (hereinafter "State"); and the University of New Hampshire (hereinafter "Campus") for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective Date") and shall end on **06/30/2025**. If the provision of services by Campus precedes the Effective Date, all service performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective Date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

Project Title: **Grant Number: NH-VW-2023-01-020**
NH Volkswagen Environmental Mitigation Trust
Granite State Clean Fleets with University of New Hampshire
Marine Shore Power Pedestal Installation

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

State Project Administrator

Name: Jessica Wilcox
Address: NH Dept. of Environmental Services
29 Hazen Drive
PO Box 95
Concord, NH 03301
Phone: 603-271-8330

Campus Project Administrator

Name: Gretchen Swain
Address: University of New Hampshire
Sponsored Programs Admin.
51 College Rd Rm 116
Durham, NH 03824
Phone: 603-862-4865

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports, and related correspondence shall be directed to the individuals so designated.

State Project Director

Name: Jessica Wilcox

Address: NH Department of Env. Services
29 Hazen Drive
PO Box 95
Concord, NH 03301

Phone: 603-271-8330

Campus Project Director

Name: David Shay

Address: UNH School of Marine Science &
Ocean Engineering
85 Adams Point Rd
Durham, NH 03824

Phone: 603-781-2859

- F. Total NH Volkswagen Environmental Mitigation Trust funds, via the Granite State Clean Fleets Grant Program, in the amount of \$40,037 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

Campus will cost-share 10% of total eligible costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. _____ from under CFDA # _____. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as part of the Project Agreement.

G. Check if applicable

Article(s) of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

H. Check if applicable

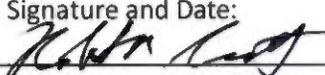
State has chosen not to take possession of equipment purchased under this Project Agreement.

State has chosen to take possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the **University of New Hampshire** and the State of New Hampshire, **Department of Environmental Services** have executed this Project Agreement.

By An Authorized Official of:
University System of New Hampshire
Name: Dianne Hall
Title: Manager, Pre-Award Compliance.
Signature and Date:  Digitally signed by Dianne Hall
Date: 2024.05.22 16:55:18
-04'00'

By An Authorized Official of:
Department of Environmental Services
Name: Robert R. Scott
Title: Commissioner
Signature and Date:  6/24/24

By An Authorized Official of: the New
Hampshire Office of the Attorney General
Name: Jashua Harrison
Title: Assistant Attorney General
Signature and Date:  7/1/2024

By An Authorized Official of: the
New Hampshire Governor & Executive
Council
Name: _____
Title: _____
Signature and Date: _____

EXHIBIT A – Scope of Services

A. Project Title: Grant Number: NH-VW-2023-01-020
NH Volkswagen Environmental Mitigation Trust
Granite State Clean Fleets with University of New Hampshire
Marine Shore Power Pedestal Installation

B. Project Period:

The term of this Scope of Services shall commence upon the Effective Date. The project completion date shall be June 30, 2025, with additional reporting requirements.

C. Objectives:

The objective of this project is the replacement and upgrade of six (6) electric plug-in power pedestals for use by ocean-going diesel vessels to reduce diesel idling and associated emissions in the state.

D. Scope of Work:

This Scope of Work describes activities that have been agreed to between State and Campus (Vendor Code #315187-B083) for the replacement and upgrade of six (6) electric plug-in power pedestals for use by ocean-going diesel vessels, using funds available via the Granite State Clean Fleets Grant Program, funded by the New Hampshire Volkswagen Environmental Mitigation Trust.

The project activities will be carried out at the University of New Hampshire’s (UNH) School of Marine Science & Ocean Engineering (SMSOE) Judd Gregg Marine Research Pier in New Castle, NH, by Campus.

State and Campus will undertake under this Agreement the installation of six (6) marine shore power pedestals (“unit(s)”) to provide power to ocean-going vessels while they are in port, supporting the operations of research vessels and ensuring they have access to reliable and compliant electrical connections while idling at the UNH SMSOE Judd Gregg Marine Research Pier.

For the purposes of this Agreement, State and Campus agree to the following:

1. State shall assign the appropriate staff to coordinate this project with Campus.
2. Campus shall replace and/or upgrade electric plug-in marine shore power units with six (6) Harbor Light SS model HLSS30100 electric plug-in marine shore power units in accordance with the project proposal submitted in response to the Granite State Clean

Fleets Program Request for Proposals. Campus will utilize a subcontractor for the installation. Execution of this agreement will serve as written approval by State of the subcontractor that will be performing the work under Campus supervision. The Request for Proposals and Campus' proposal are incorporated into the Agreement by reference.

3. Each marine shore power unit shall allow for one (1) vessel to be connected and receive power and must remain operational and available for use at least 97% of the time, on an annual basis.
4. Campus must utilize systems which are supplied with power sourced from the local utility grid and comply with international shore power design standards either:
 - a. ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems; or
 - b. IEC/PAS/80005-3:2014 Low Voltage Shore Connection Systems.
5. Installation of the units shall comply with all state and local energy and building code/zoning requirements.
6. All electrical work shall be completed by properly licensed electricians.
7. State shall reimburse Campus 90 percent of the eligible expenses, or \$40,037, whichever is less.
8. Eligible expenses under this Agreement include only the following: the cost of the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.
9. Ineligible expenses include but are not limited to: power distribution to the property line, electricity, operation and maintenance, stationary energy storage systems that power the equipment (e.g. batteries) and their installation, and on-site power generation systems that power the equipment (e.g. solar panels).
10. Campus shall provide State with the following information on each unit prior to installation:
 - a. Model
 - b. Serial #
 - c. Voltage rating
 - d. Amperage rating
 - e. Available connections
11. Campus shall own and maintain the six (6) plug-in marine shore power units installed under this Agreement for normal service for a period of no less than five (5) years. In the event that Campus sells or surpluses any unit(s) within five (5) years of the Effective Date of this Agreement, or in the event that any of the units are permanently removed or disabled, or in the event that changes to the pier render any unit(s) permanently

inaccessible, Campus shall immediately notify State and shall reimburse State in accordance with the following depreciation table.

**Project: Grant Number: NH-VW-2023-01-020
Marine Shore Power Pedestal Installation**

	Percent Value Remaining	Value to be Returned to State per Unit
Year 1 value	20	\$1,335
Year 2 value	16	\$1,068
Year 3 value	12.8	\$854
Year 4 value	10.2	\$681
Year 5 value	7.6	\$507

Note: Depreciation of grant is calculated based on a total cost of \$40,037 for six (6) marine shore power units distributed evenly as \$6,673 per unit. If total reimbursements are less than \$40,037, the value to be returned to State will be reduced proportionately.

12. Campus shall:

- a. Maintain the units in accordance with manufacturer recommendations;
- b. Not make modifications to the units; and,
- c. Make the units and related documents (including maintenance records) available for follow-up inspection for five (5) years from the Effective Date of this Agreement, if requested by State.

13. Campus shall not use grant funds for any costs not specified in this Exhibit A - Scope of Services. Campus shall complete all activities, reports, and work products specified herein.

E. Deliverables Schedule:

1. Campus shall submit **Quarterly Project Status Reports** ("Quarterly Reports") to State for two (2) years. The first quarterly report is due after the first full calendar quarter following the Effective Date of the Agreement. Quarterly Reports are due January 15th, April 15th, July 15th, and October 15th. Quarterly Reports shall include sufficient information for State to know the status of the unit(s) installations, to know if units are in service, and to estimate the emissions reductions attributable to the installation of the units, including:
 - a. The status of each units' order and delivery, with estimated date(s) of delivery, installation, commissioning, and full operation.
 - b. Campus shall notify State within one calendar week of each unit on the site becoming

fully operational.

c. Campus shall submit quarterly reports, the initial of which shall include a description of how this information is derived. Subsequent reports need not include such description unless there are changes. The reports shall contain data on that site's operation and usage, including, but not limited to:

- i. Unit activation date;
- ii. Unit ID;
- iii. Session ID, date, and start/end times;
- iv. Total time plugged in;
- v. Total time spent charging;
- vi. Total energy dispensed (kWh);
- vii. Max power output (kWh);
- viii. Equipment malfunctions and steps taken to correct;
- ix. Routine maintenance conducted;
- x. Percent of time vessels connected to a unit are charging (over reporting timeframe);
- xi. Peak kW draw in the reporting period by date and time;
- xii. Electrical demand charges incurred;
- xiii. Percentage of time during the reporting period that each unit was operational;
- xiv. Downtime and an explanation of planned and unplanned downtime, during the preceding calendar quarter;
- xv. Every fourth quarterly report shall include the operational status, demonstrating that the units met the requirement of being operational at least 97 percent of the time annually. If any unit did not meet the operational requirement, Campus shall include an explanation as to why it did not; and
- xvi. Any other information pertinent to the successful operation of the site.

2. Campus shall submit three (3) **Annual Project Status Reports** ("Annual Reports") to State by January 15th beginning the January following the last quarterly report.

a. Annual Reports shall include sufficient information for State to estimate the emissions reductions attributable to the installation of the units, and shall contain data on the site's operation and usage, including, but not limited to:

- i. Unit activation date;
- ii. Unit ID;
- iii. Session ID, date, and start/end times;
- iv. Total time plugged in;
- v. Total time spent charging;
- vi. Total energy dispensed (kWh);
- vii. Max power output (kWh);
- viii. Equipment malfunctions and steps taken to correct;
- ix. Routine maintenance conducted;

- x. Percent of time vessels connected to a unit are charging (over reporting timeframe);
- xi. Peak kW draw in the reporting period by date and time;
- xii. Electrical demand charges incurred;
- xiii. Percentage of time during the reporting period that each unit was operational;
- xiv. Downtime and an explanation of planned and unplanned downtime, during the preceding calendar year;
- xv. Every annual report shall include the operational status, demonstrating that the units met the requirement of being operational at least 97 percent of the time annually. If any unit did not meet the operational requirement, Campus shall include an explanation as to why it did not; and
- xvi. Any other information pertinent to the successful operation of the site.

F. Budget and Invoicing Instructions

1. Budget: \$40,037

<i>Item Description</i>	<i>Cost Per Item</i>	<i>Quantity</i>	<i>Total Cost</i>
Marina Electrical Equip. Model HLSS30100	\$3,278.33	6	\$19,669.98
Breakers with 100mA GFEP protection	\$1,440.00	3	\$4,320.00
New feeder cable	\$8,500.00	1	\$8,500.00
Labor Cost for Marine Vessel Shore Power System Installation	\$11,995.00	1	\$11,995.00
<i>Total Eligible Costs:</i>			\$44,484.98
<i>Maximum Funding Percentage</i>			90%
<i>Maximum Funds:</i>			\$40,037.00*
<i>Required Match:</i>			10% or \$4,449.00*

*Funding and match amounts have been rounded up to the nearest whole dollar.

2. Payment Schedule:

- a. State shall pay Campus an amount not to exceed \$40,037, or 90 percent of eligible project costs, whichever is less; upon completion of the project, pursuant to this Exhibit A - Scope of Services, Campus shall submit to State a single reimbursement request for all eligible project costs.
- b. State will reimburse Campus for eligible expenses, provided Campus is in compliance with all project and reporting requirements in this Exhibit A - Scope of Services.
- c. This Agreement is funded through the NH Volkswagen Environmental Mitigation Trust.
- d. Campus agrees to complete the project pursuant to this Exhibit A - Scope of Services in compliance with funding requirements. Failure to meet the Scope of Services may jeopardize current and/or future funding.

- e. A single invoice will be submitted on Campus letterhead no later than 90 days after project completion and will be accompanied by a detailed list of the invoiced expenses. Contact information shall be included for any questions related to invoiced expenses.
- f. Provided that all reporting requirements have been met and all documentation necessary to support the reimbursement request have been submitted, State will, within 45 days, direct the Trustee of the VW Trust to process payment to Campus. Funds transferred directly from the VW Trust are subject to approval by Trust administrators. It may take 90 days or longer for the funds to be released by the VW Trust after request for payment by the State. Campus is responsible for making payments to any subcontractors.
- g. The reimbursement request, including all invoices and supporting documentation, must be submitted by no later than 90 days after the project completion date. Invoices submitted after this date may be denied.
- h. All obligations of State and the State of New Hampshire are contingent upon availability and continued appropriation of funds for the services.

ATTACHMENT A

2023 Granite State Clean Fleets Grant Program via the NH Volkswagen Mitigation Trust Funds

In Response to RFP NH-VW-2023-01

Updated 4/19/2024

Final Scoring Results and Funding Amounts of Eligible Proposals

Grant Applicant	Location/Town	Funding Amount	Score
Selected			
University of New Hampshire	Durham	\$40,037	107
Town of Pembroke	Pembroke	\$683,147	95
City of Lebanon (Project 2 of 2)*	Lebanon	\$1,400,000	94
City of Lebanon (Project 1 of 2)*	Lebanon	\$1,400,000	91
Town of Hillsborough (Project 1 of 2)*	Hillsborough	\$206,160	82
Town of Goshen	Goshen	\$168,000	81
City of Berlin (Project 2 of 2)*	Berlin	\$170,312	78
Town of Belmont (Project 1 of 2)*	Belmont	\$207,520	76
Town of Lee (Project 2 of 2)*	Lee	\$185,648	75
Town of Enfield	Enfield	\$180,000	72
Town of Lee (Project 1 of 2)*	Lee	\$185,648	72
Town of Hillsborough (Project 2 of 2)*	Hillsborough	\$226,552	71
Town of Bennington	Bennington	\$134,160	64
Town of Greenville	Greenville	\$104,732	64
Town of Litchfield (Project 1 of 2)*	Litchfield	\$239,900	64

Town of Plaistow	Plaistow	\$949,982	64
Town of Farmington (Project 2 of 4)*	Farmington	\$256,000	63
City of Berlin (Project 1 of 2)*	Berlin	\$460,000	62
Town of Farmington (Project 1 of 4)*	Farmington	\$216,000	62

Final Scoring Results and Funding Amounts of Eligible Proposals
(continued)

Grant Applicant	Location/Town	Funding Amount	Score
Not Selected			
Town of Gorham	Gorham	\$388,800	57
Town of Belmont (Project 2 of 2)*	Belmont	\$202,412	56
Town of Litchfield (Project 2 or 2)*	Litchfield	\$119,728	55
Town of Grantham	Grantham	\$278,072	53
Town of Loudon (Project 2 of 2)*	Loudon	\$123,800	51
Town of Farmington (Project 4 of 4)	Farmington	\$680,000	50
Town of Loudon (Project 1 of 2)*	Loudon	\$327,800	50
Town of Sunapee	Sunapee	\$755,400	50
Town of Somersworth	Somersworth	\$176,000	49
Town of Farmington (Project 3 of 4)*	Farmington	\$136,000	47
Town of Fitzwilliam (Project 1 of 2)*	Fitzwilliam	\$215,597	47
Town of Weare (Project 1 of 3)*	Weare	\$224,000	44
Town of Barrington	Barrington	\$172,000	43

Town of New Boston (Project 3 of 3)*	New Boston	\$192,000	37
City of Franklin (Project 1 of 2)*	Franklin	\$93,148	36
City of Franklin (Project 2 of 2)*	Franklin	\$223,740	36
City of Laconia	Laconia	\$207,200	36
Town of Fitzwilliam (Project 2 of 2)*	Fitzwilliam	\$244,726	35
Town of Weare (Project 3 of 3)*	Weare	\$224,000	34
Town of New Boston (Project 2 of 3)*	New Boston	\$192,000	30
Town of Weare (Project 2 of 3)*	Weare	\$224,000	29
Town of New Boston (Project 1 of 3)*	New Boston	\$192,000	24
Town of Mont Vernon (Project 1 of 2)*	Mont Vernon	\$822,634	14
Town of Mont Vernon (Project 2 of 2)*	Mont Vernon	\$183,520	12

**Please note, while multiple units were included in many proposals, all unit replacements were scored individually, due to differing vehicle emissions data.*

Reviewers

Name	Agency/Organization	Title	Years of Experience
Rebecca Ohler	NHDES Air Resources Division Tech Services Bureau	Tech Services Administrator	25
Lucy St. John	NHDOT Bureau of Planning & Community Assistance	Senior Planner	8
Jessica Wilcox	NHDES Air Resources Division Tech Services Bureau	Mobile Sources Section Supervisor	6
Phil Lamoreaux	NHDES Air Resources Division Tech Services Bureau	Climate and Energy Program Manager	2

Scoring Criteria		Potential Points
A	Proposal Clarity & Project Readiness <i>Proposal is thoroughly developed, is complete, and directly addresses questions being asked. Project seems feasible within timeframe and budget.</i>	30
B	NO_x Reductions <i>Calculated using EPA's Diesel Emission Quantifier (DEQ).*</i>	15
C	PM_{2.5} Reductions <i>Calculated using EPA's Diesel Emission Quantifier (DEQ).*</i>	15
D	CO₂ Reductions <i>Calculated using EPA's Diesel Emission Quantifier (DEQ).*</i>	15
E	Environmental Justice <i>Project impacts and/or engages the population of an area disproportionately affected by diesel emissions and/or an area of Environmental Justice concern.</i>	15
F	Additional Benefits <i>Project provides benefits in addition to air quality, such as project showcases, scalability, bidirectional charging capabilities, water quality, noise reduction, collaboration/cooperation with other service providers, and workforce development.</i>	10
Total		100
Bonus Criteria		Potential Points
H	Electrification Bonus <i>Project proposes technology which is powered exclusively by electricity provided by a battery, fuel cell, or the grid.</i>	25
I	Renewable Energy Source <i>Project integrates renewable energy technology (e.g. solar panels, hydro, wind).</i>	10
Final		135