EXPO 2020 إكسبو
دبي، الإمارات العربية المتحدة
DUBAI, UNITED ARAB EMIRATES

حكومة دبي
GOVERNMENT OF DUBAI

هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority

SOLAR DECATHLON MIDDLE EAST
DUBAI, UAE - 2020

SOLAR DECATHLON MIDDLE EAST 2020

SPECIAL EXPO EDITION - DUBAI, UNITED ARAB EMIRATES

REQUEST FOR PROPOSAL

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Important Dates

Expression of Interest (www.solardecathlonme.com):	Open from April 2018
First Awareness Workshop:	TBC
Application questions (must be sent to SDME Email)	No later than May 22th, 2019
Application submission Deadline:	May 29th, 2019, at 12:00 UAE time
Selection of the participating Teams:	Late June 2019
Meetings with Pre-selected Teams:	Starting in July 2019
Architectural Models Exhibition at WETEX	October 2019
SDME Competition:	November - December 2020 (TBC)
World EXPO 2020 Dubai	October 20th, 2020 - April 10th, 2021

For more information and questions

Solar Decathlon Middle East Website	http://www.solardecathlonme.com/
SDME Email	sdme@dewa.gov.ae

INTRODUCTION

After the success of the first edition of the Solar Decathlon Middle East, the Government of Dubai, through the Dubai Electricity and Water Authority (DEWA), invites university teams from around the world to participate in the ultimate sustainable built environment competition, the Solar Decathlon Middle East 2020 that will be held in conjunction with the World Expo 2020 Dubai.

"We share many of the common goals of DEWA, especially in the realm of sustainable energy, and it is fitting that we will be working together,"
His Highness Sheikh Ahmed bin Saeed Al Maktoum, Chairman of the Expo 2020 Dubai Higher Committee.

"We are committed to driving sustainability, which is a major pillar for Expo 2020 Dubai."
His Excellency Saeed Mohammed Al Tayer, Managing Director, and CEO of DEWA

EXPO 2020 DUBAI UAE

The World Expo 2020 Dubai will be a festival of human ingenuity. The engines of growth are no longer steam-powered. Instead, collaboration and partnership have taken its place, becoming the driving force behind new developments. Expo 2020 Dubai will showcase and explore what is possible when new ideas and people connect.

Connecting Minds, Creating the Future

Through its theme 'Connecting Minds; Creating the Future', Expo 2020 Dubai provides a platform to foster innovation, creativity, and collaboration globally. A new concept is triggered for a long-term influence in the Middles East and globally. The Expo 2020 is underpinned by three interwoven themes that they see fundamental in addressing the most important issues of our time: Opportunity, Mobility, and Sustainability.

OPPORTUNITY

Opportunity is at the heart of development, ensuring that new horizons are opened to individuals and communities to help them to meet their current needs and their future aspirations.

MOBILITY

Mobility is the bridge to opportunity by connecting people, goods, and ideas and providing easier access to markets, knowledge, and innovation.

SUSTAINABILITY

Sustainability guides how we grow opportunity by doing more with less while protecting and preserving our environment for future generations.

Both the Expo 2020 themes, Opportunity, Mobility, and Sustainability as well as its main messages "Connecting Minds; Creating the Future," "Sustainable Solutions," and "Youth for a Brighter Future" are closely related with the Solar Decathlon Middle East. Thus, it is not a surprise that both organizations agreed in linking these projects, and their events.

The Solar Decathlon Middle East 2020 is organized by the Dubai Electricity and Water Authority (DEWA). The SDME 2020 is part of the Memorandum of Understanding (MOU) signed between Expo 2020 and DEWA, in which DEWA is recognized as an Official Sustainable Energy Partner. Both organizations have formed a national partnership to maximize the use of clean energy and deliver the most sustainable World Expo.

The Solar Decathlon Middle East 2020 will raise the prestige and visibility of the selected participating universities. They will be part of the small group of top institutions that will compete in the world's most important green construction competition, internationally known as the "Olympics of Sustainable Building", which will be for the first time in its history linked to a World Expo.

SOLAR DECATHLON MIDDLE EAST

The Solar Decathlon is an international competition created by the U.S. Department of Energy in which universities from all over the world meet to design, build and operate sustainable and high energy efficiency grid-connected solar-powered houses. During the final phase of the competition, participating teams assemble their houses in an expo area. Once assembled, the houses are open to the public, while undergoing the ten contests of the competition, which is why this event is called a Decathlon.

The Solar Decathlon Middle East (SDME) was created through an agreement signed between Dubai Water and Electricity Authority (DEWA) and the Department of Energy of the United States of America, in June 2015, to organize these sustainable solar house competitions in Dubai, in 2018 and 2020. More information about the Solar Decathlons Middle East and the 2018 edition is available at https://www.solardecathlonme.com/.

The SDME competitions are part of DEWA's strategic plan to support and provide educational and technical training opportunities for students and the workforce in the field of sustainability. DEWA efforts are aligned with the National Innovation Strategy of the UAE and its commitment to improving the nation's science, technology, engineering, and mathematics education, and advancing towards a more sustainable future.

The Solar Decathlon Middle East is organized under the patronage of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council. Its Steering Committee is composed of several ministries and authorities, as well as important organizations as the Supreme Council of Energy, Dubai Future Foundation and Dubai Expo 2020.

The Solar Decathlon Middle East offers students a unique opportunity for learning, taking theory and putting it into practice, and doing so through a case study. Students working on the project will be challenged to use their innovation capacity, and their ability to design and build an energetically self-sufficient solar house. The projects are developed by multidisciplinary teams, giving the students the opportunity to learn not only about technical issues but also about teamwork, communication skills, sustainable lifestyle, and socio-economic issues to ensure the viability of their project.

The Solar Decathlon Middle East fosters the development of ideas, capacities, and technologies that can be implemented for the benefit of the inhabitants of the Middle East region. The projects designed by the participating teams shall include innovative solutions that respond to the Middle East cultural, climatic and social context and contribute to a more sustainable living in this region. The houses envelopes and their passive and active systems must be selected taking into consideration the heat, dust & high humidity that are common in Dubai and other Middle Eastern cities. The winners of the competition are the teams that best blend innovation and design excellence with minimum energy consumption and optimal energy production.

SOLAR DECATHLON MIDDLE EAST 2020 – SPECIAL EXPO EDITION

"The future starts today, not tomorrow."
HH Sheikh Mohammed Bin Rashid Al Maktoum
Vice President and Prime Minister of the UAE and Ruler of Dubai

Dubai, a unique city whose name has become synonymous with the biggest and boldest, it is also a city that has decided to be a global hub of sustainability and innovation. The Expo 2020 is a big step in this regard. Dubai once again will capture the world's attention, while millions of people from all around the world will visit during the expo.

The Solar Decathlon Middle East 2020 will be held in Dubai, as part of the Expo 2020 activities, offering the participating universities and their partners the best opportunity to be part of the most important global event of the year. The unique houses designed and constructed by the participating teams will be exhibited in a period when sustainability, innovation, and green energy will be in the minds of all the people living in or visiting Dubai.

The SDME organizers aim to accelerate the future of the sustainable built environment, empowering bright young minds, and providing them with a space to create, design and test futuristic solutions for the current environmental, energy, and social challenges. Each of the projects will showcase novel and different solutions that will show the visitors the vision of a more sustainable world's future.

After the review of the applications, the SDME organization will select up to 22 teams to compete in the Solar Decathlon Middle East 2020. The selected teams will be involved in the project for around two years, developing the following phases: houses design, construction, assembly, competition, exhibition, and disassembly. The exhibition period of the houses of this special edition will be longer than a typical Solar Decathlon. However, the students do not need to be on site during the whole period of the exhibition.

The Solar Decathlon Middle East 2020 Rules will be the basis for the competition, and is available at http://www.solardecathlonme.com/. The rules may be revised during the development of the project, based on lessons learned and technology advancements. Also, additional details or clarifications may be added. However, all the modifications will be indicated in the new editions of the SDME Rules, and the updated document will always be available on the SDME web page.

SDME 2020 – Seven Pillars

The Solar Decathlon Middle East 2020 organization has decided to focus on seven interrelated pillars for this edition: Sustainability, Future, Innovation, Clean Energy, Mobility, Smart Solutions, and Happiness. These pillars coincide with the goals of DEWA and the World Expo 2020, and shall be present in all the SDME 2020 houses.

Sustainability

The houses developed by the participant teams must show a clear understanding of sustainability in the built environment. The design, materials, systems, and components should have a very low environmental impact during its whole life cycle. Additionally, the houses should provide healthy and comfortable spaces, and meet all the needs of their occupants, with a minimum consumption of energy and water. The study of the local environment, the bioclimatic architecture, and the passive design strategies are a good starting point

Future

SDME 2020 shares the Dubai Government's commitment to accelerate the future. In the competition, bright young minds will work together to transform the current and future built environment challenges into great opportunities to generate breakthrough solutions. The teams shall evaluate cutting edge technologies like artificial intelligence (AI), machine learning, 3D printing, IoT, and biomimicry, and implement in their projects the ones that assist in making their houses most sustainable, efficient and comfortable.

Innovation

SDME 2020 is an excellent platform to test and showcase materials, component, equipment, and systems developed or improved by the participant universities, or by their research and industrial partners. The innovation shall be embedded in all areas of the project. The teams shall adapt or look for new solutions to respond to the SDME 2020 challenges, the extreme heat, achieving high efficiency, smart energy management, low embodied energy, clean energy production, water conservation, and occupant comfort. These creative solutions may be related to topics like responsive skins, adaptive facades, advanced glazing system, 3D printing, novel solar technologies, AI, smart systems, solar cooling, and energy storage, among others.

Clean Energy

The houses must be conceived as Net Zero Energy Buildings (NZEB). Very high energy efficiency solar houses that are connected to the grid and generate enough energy to compensate its demand, including an electric vehicle. While it is essential for the designs to ensure the renewable energy supply, it is even more important to limit the energy consumption. Therefore, passive design strategies and energy efficiency are key elements.

The seamless integration of the photovoltaic and solar thermal systems into the building envelope is also a must for the SDME houses.

Mobility

The question of energy coupling between the energy-plus buildings and the electric transportation systems is to be addressed by the teams. The SDME projects must prove that they can produce enough energy to cover the demand of both the house and the electric vehicle. SDME is not a competition for electric vehicles but a testing ground for innovative solutions merging community design, housing and sustainable transportation in a holistic approach.

Smart Solutions

The SDME 2020 projects shall incorporate smart technologies that offer wise energy management and increase the energy efficiency, safety, and comfort of the occupants. The smart solutions shall interconnect each house's systems and use information technology to optimize its overall performance. These solutions must include user-friendly interphases and dashboards.

Happiness

The teams must keep in mind that the houses are designed for the people, for their happiness. They shall think about how to make the owners happy, creating comfortable and pleasant living spaces. The views, the sunlight, the interior-exterior relation, as well as the indoor environment quality (IEQ), are some of the aspects that shall be considered. The house systems and technologies must be user-friendly, and must give the occupants the ability to override any programmed action. Teams are encouraged to implement technologies that teach, give suggestions or help the people reduce their energy and water consumption.

SDME 2020 - Objectives

The objectives of the SDME 2020 are aligned with the goals of the World Expo 2020, the National Innovation Strategy of the UAE and DEWA's Strategic Plan. These objectives are:

- To accelerate the future of sustainable buildings, exploring the possibilities of using breakthrough solutions and cutting-edge technologies to increase the energy efficiency, people's happiness and the sustainability level of the buildings and cities.
- To educate the participant students on the benefits and opportunities offered when using renewable energy technologies, energy management, smart solutions, and advanced materials, challenging them to think creatively and develop innovative approaches that contribute to the dissemination of sustainable buildings.

- To promote research in the buildings, cities and clean energy as well as the collaboration between industry and academia.
- To encourage professionals from different industries to select materials and systems that reduce the environmental impact of buildings, optimizing the economic viability and providing comfort and safety of occupants.
- To raise awareness about the responsible energy use, renewable energy, energy efficiency, and the technologies available that support in reducing/optimizing energy consumption.
- To foster sustainable transportation.
- To promote architecturally attractive solar systems integration, through replacing conventional construction materials in the building envelope such as the roof, skylights or facades with solar technologies.
- To bring high efficiency architectural and engineering solutions for the Middle East climate.
- To demonstrate that high-performance solar homes can be comfortable, attractive and affordable.
- To demonstrate that an attractive and well-designed house can generate enough electricity to meet the needs of a household including transportation.

SDME 2020 - Prize Scheme

The monetary prizes will be awarded to all the university teams, selected by the SDME organization to take part in the SDME 2020 Competition, that fulfill the following requirements: submit all the competition's deliverables, complete the assembly of their houses in the Solar Hai (competition site), pass the inspections and participate in the SDME contests.

At the end of the contests period, each participating team will be associated with a final score between 0 and 1,000 points, calculated according to the contests outlines in the SDME 2020 Rules, and based on the team's performance, and the bonuses and penalties, if any. The teams will be ranked according to their net score. The prize structure for the 22 teams is shown in the table below.

Place	Award AED
1st	1,000,000
2nd	800,000
3rd	650,000
4th	500,000
5th	450,000
6th -22nd	400,000

Creative Solutions Awards will be dedicated to rewarding innovative solutions, ideas, and proposals from the participants that can be further developed into a business proposal. A total fund of AED 200,000 will be distributed among to the most innovative solutions, according to the assessment of the jury.

Suggestions for Applicants

One of the objectives of SDME is to give to the students of architecture, engineering, business, and communication the opportunity to gain hands-on experience in designing, constructing and promoting sustainable buildings. This valuable training will help more students enter the clean energy workforce. Therefore, teams are allowed and encouraged to collaborate with the industry. University leadership is encouraged to look to the private sector when forming a team.

The participating teams not only bring international visibility to their universities, but also represent their cities and their countries. Both the cities and states are eager to be represented in world-level events such as the SDME 2020 – Special Expo Edition. They also like to link their names with initiatives to empower the youth and promote sustainability, innovation, and clean energies. Therefore, applicants shall look for the support of their municipalities, states, ministries and other public entities, and establish contact as soon as possible with their country's embassy and consulate in the UAE.

The applicants are encouraged to organize a multidisciplinary team of students and professors and work together from the very beginning, in the application, goals, and the conceptual design. To succeed in SDME, it is fundamental to use an integrated building design approach and optimize the project as a whole (70% of the decisions associated with environmental impacts are made within the first 10% of the design process).

Universities that want to participate for the first time in the Solar Decathlon are encouraged to learn as much as possible from the past, studying successful projects of previous competitions and interviewing faculty advisors, project managers and students that led these projects. The drawings, the project manuals and the contact information of the SDME 2018 teams are available at http://www.solardecathlonme.com/. Similarly, all the information about the teams that have participated in the US DOE Solar Decathlon is available at https://www.solardecathlon.gov/.

International universities, wishing to enter the SDME 2020, are encouraged to team up with a UAE university and industry partners to facilitate technology transfer. However, teaming up with a UAE university is not a prerequisite for selection or participation.

Successful teams have strong partners, adequate institutional support and good sponsors. Teams are encouraged to work on their support network from the very beginning and maintain the fundraising and sponsorship tasks as a priority during the whole project.

ELIGIBILITY REQUIREMENTS

Eligibility Requirements

Teams must be led by a post-secondary education institution. Only Institutions from countries that have commercial relationships with the UAE will be able to enter the competition or be part of the teams.

Application Process

Teams must register to submit a proposal. After submission, DEWA will perform an initial review of the applicant's proposal to determine whether they meet the eligibility requirements. DEWA will not review or consider noncompliant and/or nonresponsive or otherwise ineligible submissions.

SUBMISSION

Online Registration Form

To be entitled to submit a Full Application, applicants must be registered, using the SDME Online Registration Form, available at http://www.solardecathlonme.com/.

The SDME organization encourages participants to register as soon as possible to establish a fluent communication with the organizers during the application process. The information provided on th Registration Form can be updated. This information will not be used for down-selection purposes, and does not commit a applicant to apply.

Each applicant team must provide the following information as part of the registration:

- Lead University (Main point of contact): Name, City, Country
- Other Universities (which make up the team)
- Project Title
- Team information:
    - Main Contact Person (Professor/Lecturer): Name, Institution, Position, Email, Phone, Mobile
    - Key Participants (Professors/Students): Name, Institution, Position, Email, Phone, Mobile
- Abstract – Provide a brief explanation about the main ideas the team intends to implement in the SDME 2020 (maximum of 200 words)
- Have the lead university participated in a previous Solar Decathlon (Yes/No) If yes, in which one?

Applicants will receive a "Reference Number" upon registration for the competition. All the application documents must be identified by this number in their content and their file names.

Online Submission

All submissions must conform to the following form and content requirements, including maximum page lengths, described below and **must be submitted via SDME Website** unless specifically stated otherwise.

DEWA will not review or consider applications submitted through means other than ONLINE SUBMISSION, applications submitted after the deadline, or incomplete submissions. DEWA will not extend the deadline for applicants who fail to submit required information and documents due to server/connection congestion.

The Full Application must conform to the following requirements:

- Must be submitted in Adobe PDF format unless stated otherwise.
- Must be written in English.
- All pages must be formatted to fit on A4 paper with margins not less than 2.5 cm on every side. Use Times New Roman typeface, a black font color, and a font size of 12 points or larger (except in figures or tables, which may be 10-point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies. References must be included as footnotes or endnotes in a font size of 10 or larger. Footnotes and endnotes are counted toward the maximum page requirement.
- The Reference Number must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.
- Each must not exceed the specified maximum page limit, including cover page, charts, graphs, maps, and photographs when printed using the formatting requirements set forth above and single-spaced. If an applicant exceed the maximum page lengths indicated below, DEWA will review only the authorized number of pages and disregard any additional pages.

Applicants are responsible for meeting each submission deadline. **Applicants are strongly encouraged to submit Full Applications at least 48 hours in advance of the submission deadline**. Under normal conditions, applicants should allow at least one hour to submit a Full Application. Once the application is submitted through SDME website, it is allowed to revise or update it only until the expiration of the deadline.

DEWA urges the applicants to carefully review the Full Application requirements to allow enough time for the preparation of required information and documents. All Full Applications that pass compliance review will undergo comprehensive technical merit review according to the criteria identified in this notice.

For questions about this Request for Proposal and the Solar Decathlon Middle East 2020, please send an email to solardecathlonme@dewa.gov.ae.

Additional Information on SDME Application Portal

SDME Application Portal is designed to enforce the deadline specified in this notice. The "Apply" and "Submit" buttons will automatically disable at the defined submission deadline. Should applicants experience problems with online submission, the following information may be helpful:

Applicants that experience issues/technical difficulties with submission should contact the organizers for assistance using the email solardecathlonme@dewa.gov.ae. PLEASE NOTE, however, that applicants facing issues in the last hour before the deadline (when network traffic is at its heaviest) may not be able to obtain the organizer's support in a timely manner.

FULL APPLICATION DOCUMENTS

Full Applications must contain the following four documents: Technical Volume, Summary for Public Release, Summary Slide, and Letters of commitment. Each of these documents must be identified by the Reference Number (Ref) and the Lead University (Univ). All universities in a team, professors and students have the same level of importance in the SDME. However, to facilitate the communication and the administration processes, each team must designate the university that will have the main point of contact, named as the Lead University. Full Applications must conform to the following requirements:

Documents	Page Limits	Format	Filename
Technical Volume	25	PDF	Ref_Univ_Technical Volume
Summary for Public Release	1	PDF	Ref_Univ_Summary
Summary Slide	1	MS PowerPoint	Ref_Univ_Slide
Letters of commitment	(no limits)	PDF	Ref_Univ_Commitment

Note: The maximum file size that can be uploaded to the SDME Application Portal is 10MB. If the Technical Volume exceeds 10MB but is still within the maximum page limit specified, it must be broken into parts and denoted to that effect. For example Ref_Univ_ Technical Volume _01, Ref_Univ_Technical Volume_02, etc.

Technical Volume

The Technical Volume must take into consideration the Seven Pillars of SDME 2020, and meet the merit review criteria as addressed in this document. This volume must conform to the following content and form requirements, including maximum page lengths.

Applicants must provide citations and references to the primary research literature to justify the claims and approaches included in the Technical Volume. DEWA may review the primary research literature to evaluate applications. However, DEWA is under no obligation to review cited sources (e.g., internet websites).

The Technical Volume as part of the Full Application must not be more than 25 pages, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all the information in the table below. The applicant should consider the weighting of each of the evaluation criteria listed in this notice when preparing the Technical Volume.

Technical Volume Sections

Section	Description
Cover Page	It should include the project title, Universities, and colleges that make up the teams, and the signature of an authorized official of each participating institution.
Table of Content	Sections and sub-sections titles and their commencing page numbers.
Project Overview (Should take approx. 10% of the Technical Volume)	The Project Overview should contain the following information: • Background: The applicant should briefly discuss the background of its organization(s), including the history, successes, and current research and development status (i.e., the technical baseline) relevant to the technical topic addressed in the application. • Project Goal: The applicant should explicitly identify the targeted improvements to the baseline technology and the critical success factors in achieving this goal. • Impact: The applicant should discuss the impact that this innovative design will have on the current state of the technology in this area.
Technical Description, Innovation, and Impact (Should take approx. 20% of the Technical Volume)	The Technical Description should contain the following information: • Relevance and Outcomes: The applicant should provide a detailed description of the project. This section should include the relevance of the proposed project to the goals and objectives of SDME, including the potential to meet specific technical targets or other relevant performance targets. The applicant should clearly specify the expected outcomes of the project. • Feasibility: The applicant should demonstrate the technical feasibility of the proposed project and the capability of achieving the anticipated performance targets, including a description of previous work done and results. • Innovation and Impacts: The applicant should describe the current state of the art in the applicable field, the innovation of the proposed project, and the overall impact on advancing state of the art/technical baseline if the project is successful.

Technical Qualifications and Resources (Should take approx. 20% of the Technical Volume)	In the Technical Qualifications and Resources the applicant should: • Describe the team's unique qualifications and expertise. • Specify the schools or departments that are making up the team, noting that it is a multidisciplinary project. • Describe the team's existing equipment and facilities that will facilitate the successful completion of the proposed project • Include relevant, previous work efforts, demonstrated innovations, and how these enable the team to achieve the project objectives. • Describe the time commitment of the key team members to support the project. • Attach one-page resumes for key participating team members as an appendix. Resumes do not count towards the page limit. Multi-page resumes are not allowed. • Attach letters of commitment from all subrecipient/third party cost share providers as an appendix. Letters of commitment do not count towards the page limit. • Attach any letters of support from partners/end users as an appendix (1-page maximum per letter). Letters of support do not count towards the page limit.
Workplan (Should take approx. 20% of the Technical Volume)	• Project Objectives: The applicant should provide a clear and concise (high-level) statement of the goals and objectives of the project as well as the expected outcomes. • Technical Scope Summary: The applicant should provide a summary description of the overall work scope and approach to achieve the objective(s). The overall work scope is to be divided by performance periods that are separated by discrete, approximately annual decision points (see below for more information on go/no-go decision points). The applicant should describe the specific expected result of each performance period. • Work Breakdown Structure (WBS), Task Description Summary and Milestones: The Workplan should describe the work to be accomplished and how the applicant will achieve the milestones, will accomplish the final project goal(s), and will produce all deliverables. • Project Schedule (Gantt Chart or similar): The applicant should provide a schedule for the entire project, including milestones and task and subtask durations. • Management plan: The applicant should discuss the team's proposed management plan, including the overall approach for managing the work, the roles of the working teams, critical interdependencies, project management practices, the approach to project risk management, how project changes will be handled, the approach to Quality Assurance/Control, how communications will be maintained among the team members.

Sponsorship and Resources (Should take approx. 15% of the Technical Volume)	• Demonstrate that the team will have the economic capacity and the necessary resources to complete all the phases of the project. • Show a clear understanding of the costs associated with the project, using the Cost Estimation Form, as a reference. • Present the Sponsorship plan, including, among other things, a list of potential sponsors, the strategies to gain the support of specific industries, institutions or governmental entities as well as the incentives and benefits that will be offered to each type of sponsors. • Explain the communication and marketing plan, and its relationship with the sponsorship efforts. • Specify the resources, equipment, and facilities that are currently available and the financial commitment of the university and other institutions, if any. • Indicate the partners, companies and government entities that currently have expressed their interest in supporting the team. Include their letters in the "Letters of Commitment" PDF file.
Concept and Design Elements (Should take approx. 15% of the Technical Volume)	Provide graphics, e.g., sketches, drawings, diagrams, etc., and a one-page 500-word maximum narrative summarizing the most important elements of the conceptual design solution.
Attachments (Do not count towards the page limit)	The only permitted attachments are: • Resumes: one-page resumes of the key members of the team. (Multi-page resumes are not allowed) • Letters of commitment from all subrecipient/third party cost share providers • Letters of support from partners, potential sponsors, institutions and governmental entities (1-page maximum per letter)

Summary for Public Release

Applicants are required to submit a one-page summary of their project, that contains the information of your project, suitable for dissemination to the public. It should be a self-contained document that identifies the name of the university(ies), the project director(s), the project title, its objectives, a brief description, the potential impact (i.e., benefits, outcomes). This document must not include any proprietary or sensitive business information as DEWA may publish it after selections are made. The project summary must not exceed 1 page when printed using standard A4 paper with 2.5cm margins (top, bottom, left, and right) with a font not smaller than 11 points.

Summary Slide

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format. This slide is used during the evaluation process. The Summary Slide must include the following information:

- Project title, University(ies) name(s) and country(ies)
- The project's key idea
- Proposed project goals, uniqueness, and takeaways
- Any key graphics (illustrations or charts)

Letters of Commitment

Applicants are required to provide a scanned copy of letters of commitment of the ultimate authority (Rector, Chancellor or President) of all the universities that making up the team, where the institutions declare their commitment to participate in the competition and to support the faculty and students during the design, construction, operation and exhibition of their houses. Additionally, they must include the letters of the deans or directors of the schools and departments that are part of the team. All these letters must be signed, stamped, and bound in a single PDF file.

EVALUATION CRITERIA

The evaluation process consists of three phases: Eligibility Review, Technical Evaluation, and Selection. The Eligibility Review will be performed to determine if all required information has been provided and if the required formats and page limits have been met.

The purpose of the Technical Evaluation is to determine which teams have the most promising approach and the greatest potential for developing a successful project. The teams must demonstrate that they have the technical capability to lead their students in the design of an outstanding project and that they will be able to obtain the resources and support needed to construct their houses and participate in the contests and exhibition periods. The technical reviewers will base their conclusions only on the information contained in the proposals. It cannot be assumed that the reviewers are acquainted with the institutions or key individuals or any of their prior work or accomplishments.

Ultimately, the competition officials will consider the recommendations of the reviewers, along with other considerations such as program policy factors, in determining which applications to select.

Technical Evaluation Criteria

Criterion 1: Technical Innovation	**Weight: 25%**

The proposal demonstrates that the applicant:

- Has an aggressive yet practical approach to the project, maximizing its chances of success by studying previous competitions and committing to a design philosophy that demonstrates the valuable lessons learned.
- Proposes advanced thermal and photovoltaic technologies and novel ways to integrating them into the building's envelope.
- Seeks to incorporate innovative materials, components, equipment, and systems that increase the level of sustainability, the efficiency, or the energy production of the buildings in the Middle East, or the level of wellbeing of its people.

Criterion 2: Sponsorship Engagement and Team Support	**Weight: 25%**

The proposal demonstrates that the applicant:

- Has a clear understanding of the costs associated with the project (as described in the cost estimation form).

- Has an adequate strategy for obtaining enough sponsorship or other funds to support all phases of the two-year project.
- Has or can obtaine the neccessay equipment, instrumentation, and facilities.
- Has already established industrial, institutional and government support, or has a suitable strategy to gain their support.

Criterion 3: Organization and Project Planning **Weight: 20%**

The proposal demonstrates that:

- The team understands all the activities involved in the project
- The activities are well planned and organized to ensure successful completion
- How and who will make decisions, and how conflicts will be resolved are adequately addressed.
- Challenges including the following are addressed: House transportation, academic calendar, time in Dubai during the final phase, long-distance collaboration (for mixed teams), and overseas transportation time and logistics (for international teams).

Criterion 4: Conceptual Design **Weight: 15%**

The proposal demonstrates that:

- The team is capable of designing an innovative highly energy-efficient zero energy house .
- Sustainability is considered in all design decisions, including the selection of the materials, equipment, and systems, including water conservation, reuse, and recycling.
- The team has a clear understanding of Dubai´s climate and the proper passive design strategies.
- The integration of the photovoltaics and the solar thermal systems in the skin of the house have been taken into consideration.
- The project has the design potential to succeed in the marketplace and benefit professional home builders and solar installers.

Criterion 5: Curriculum and Integration **Weight: 15%**

The proposal demonstrates that the institution (or institutions):

- Has an architecture, building science and engineering curriculum that allows the Solar Decathlon project to be well-integrated into the students' course work
- Incentivizes top students to make long-term commitments to the project by offering scholarships, independent study credit, paid research assistantships, or other paid or academic compensation
- Has a full commitment of college or university administration, professors and students (Please provide the letters of commitment).

Other Selection Factors

In addition to the above criteria, the officials may consider the following factors in determining which Full Applications to select for the competition:

- Geographic and Technological Diversity
- The level of industry involvement
- Whether the proposed project will accelerate transformational technological advances
- Whether the proposed project is likely to lead to increased employment and manufacturing in the United Arab Emirates

NOTIFICATION OF SELECTION

DEWA anticipates notifying applicants of the application results by late June 2019.

Rejected Submissions

Ineligible Full Applications are rejected and are not reviewed or considered. The team's contact person, designated in the Registration Form, will receive an Email notification stating the basis upon which the Full Application was rejected.

Full Application Notifications

DEWA notifies the applicants via a notification letter by email to the designated technical and administrative points of contact. The notification letter may inform the applicant that its Full Application was selected for the competition, or not selected. Alternatively, DEWA may notify one or more applicants that a final selection determination on Full Applications will be made at a later date, subject to the programmatic or other factors.

Successful Applicants

A notification letter selecting a Full Application for the competition does not authorize the applicant to commence performance of the project. If an application is selected for the competition, it is not a commitment to issue an award. Applicants are not officially accepted into the competition until DEWA selection requirements are complete.

The competition acceptance process will take approximately 60 days. Applicants must designate a primary and a backup point-of-contact in the SDME Application Portal with whom DEWA will communicate to conduct negotiations. The applicant must be responsive during negotiations (e.g., provide requested documentation) and meet the negotiation deadlines. If the applicant fails to do so or negotiations are otherwise unsuccessful, DEWA will cancel the selection. DEWA reserves the right to terminate selection at any time for any reason.

Unsuccessful Applicants

DEWA shall promptly notify in writing each applicant whose application has not been selected for the competition. The written notice should explain why the application was not selected.

Terms and Conditions

Selected teams must continue to comply with all terms and conditions of the SDME 2020 Rules. Receiving a prize is contingent upon fulfilling the specific competition requirements.

Attachment A

Cost Estimate for the Project

Team Name		Ref. Num.	
University(ies)		Country	
		Country	
Faculty Advisor		Email	
Signature		Phone	

No.	ITEMS DESCRIPTION (Maintain the sections /add or remove items, as applicable)		TOTAL
1	**Administrative Expenses**		
1.1	Consumables and office supplies		
1.2	Purchased Equipment		
1.3	Professors and Researcher		
1.4	Granted Students and aids		
1.5	Training (H&S, first aid, etc.)		
1.6	Travels for meetings between members or partners		
1.7	Consultants		
1.8	Other Administrative expenses		
		Total	
2	**Communication**		
2.1	Website (creation and maintenance)		
2.2	Communication documentation		
2.3	Exhibitions and Activities		
2.4	Publications and brochures		
2.5	Architectural Models		
2.6	Videos		
2.7	Uniforms		
2.8	...		
		Total	
3	**First Workshop in Dubai (3 Team members)**		
3.1	Travel & Transport		
3.2	Lodging		
3.3	Expenses Allowance		
3.4	Miscellaneous Expenses		
		Total	
4	**Second Workshop in Dubai (8 Team Members)**		
4.1	Travel & Transport		
4.2	Lodging		
4.3	Expenses Allowance		
4.4	Miscellaneous Expenses		

	Total	

5	House Construction	
5.1	Materials (structure, floors, facades, roof, finishing, decks, ramps, etc.)	
5.2	Electrical materials and equipment	
5.3	HVAC equipment	
5.4	Plumbing materials and equipment	
5.5	PV and batteries installation (materials, and equipment)	
5.6	Solar Thermal installation (materials and equipment)	
5.7	Appliances	
5.8	Smart solutions and automatization	
5.9	Furniture	
5.10	Tools and equipment (purchases and rentals)	
5.11	Collective protective equipment purchases and rentals	
5.12	Personal protective equipment (PPE)	
5.13	Laborers and support staff	
5.14	Subcontractors	
5.15	...	
5.16	Other expenses	
	Total	

6	Disassembly in Origin and Transportation	
6.1	Disassembly, packing and loading staff	
6.2	Materials and equipment for disassembly, packing, and loading	
6.3	Transport Origin-Dubai and Dubai-Origin	
6.4	Transport insurance	
6.5		
6.6	Other expenses	
	Total	

7	Final Phase in Dubai	
7.1	Travel	
7.2	Lodging	
7.3	Meals or allowance	
7.4	Medical and accident insurance (team members and crew)	
7.5	...	
7.5	Other expenses	
	Total	

8	Assembly and Disassembly in the Solar Hai	
8.1	Cranes, machinery and equipment	
8.2	Tools and equipment	
8.3	Laborers and support staff	
8.6	Insurance EAR/CAR (Works and equip. & TPL and Property)	
8.6	Workmen Compensation & Employers Liability Insurance (if contractors)	
8.7	...	

8.8	Other assembly and disassembly expenses		
		Total	
9	Contingency		
	Contingency costs		
	ESTIMATED TOTAL COST		
	Chapters 1 to 4		
	Chapter 5		
	Chapters 6 to 8		
	Chapter 8		
		Total	